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Characterization of the electrochemical oxidation of peroxynitrite: relevance to oxidative stress bursts measured at the single cell level.

Chemistry. 2001 Oct 1;7(19):4171-9.

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Mitochondrial theory of aging matures--roles of mtDNA mutation and oxidative stress in human aging.

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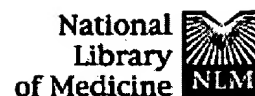
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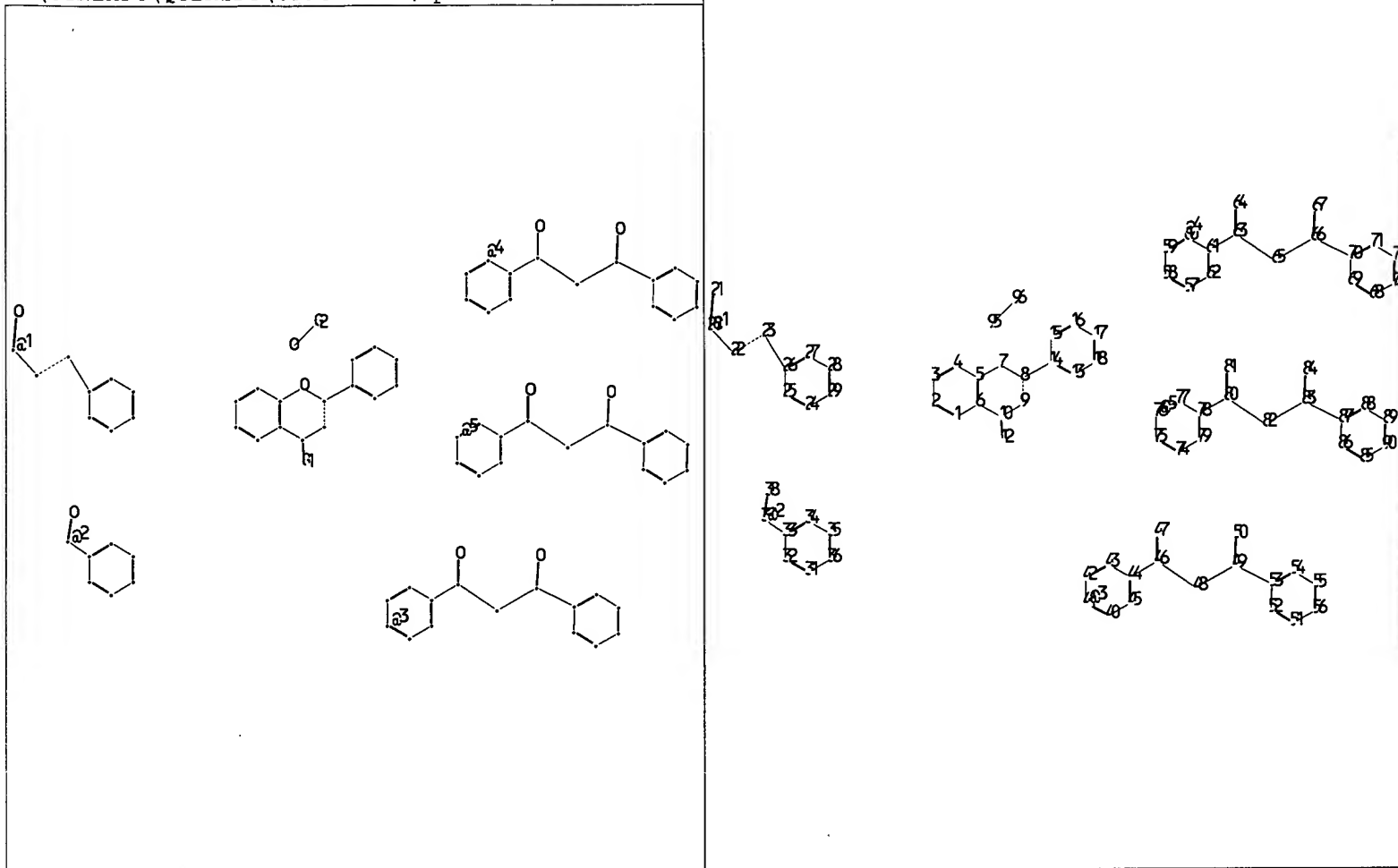
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## chain nodes :

12 20 21 22 23 37 38 46 47 48 49 50 63 64 65 66 67 80 81 82 83 84 95  
96

## ring nodes :

1 2 3 4 5 6 7 8 9 10 13 14 15 16 17 18 24 25 26 27 28 29 31 32 33  
34 35 36 40 41 42 43 44 45 51 52 53 54 55 56 57 58 59 60 61 62 68 69  
70 71 72 73 74 75 76 77 78 79 85 86 87 88 89 90

## chain bonds :

8-14 10-12 20-21 20-22 22-23 23-26 33-37 37-38 44-46 46-47 46-48 48-49 49-50  
49-53 61-63 63-64 63-65 65-66 66-67 66-70 78-80 80-81 80-82 82-83 83-84 83-87  
95-96

## ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 13-14 13-18 14-15 15-16 16-17  
17-18 24-25 24-29 25-26 26-27 27-28 28-29 31-32 31-36 32-33 33-34 34-35 35-36  
40-41 40-45 41-42 42-43 43-44 44-45 51-52 51-56 52-53 53-54 54-55 55-56 57-58  
57-62 58-59 59-60 60-61 61-62 68-69 68-73 69-70 70-71 71-72 72-73 74-75 74-79  
75-76 76-77 77-78 78-79 85-86 85-90 86-87 87-88 88-89 89-90

## exact/norm bonds :

8-9 10-12 20-21 22-23 37-38 46-47 49-50 63-64 66-67 80-81 83-84 95-96

## exact bonds :

5-7 6-10 7-8 8-14 9-10 20-22 23-26 33-37 44-46 46-48 48-49 49-53 61-63 63-65  
65-66 66-70 78-80 80-82 82-83 83-87

## normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 13-14 13-18 14-15 15-16 16-17 17-18 24-25 24-29 25-26  
26-27 27-28 28-29 31-32 31-36 32-33 33-34 34-35 35-36 40-41 40-45 41-42 42-43  
43-44 44-45 51-52 51-56 52-53 53-54 54-55 55-56 57-58 57-62 58-59 59-60 60-61  
61-62 68-69 68-73 69-70 70-71 71-72 72-73 74-75 74-79 75-76 76-77 77-78 78-79  
85-86 85-90 86-87 87-88 88-89 89-90

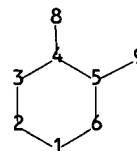
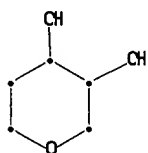
## isolated ring systems :

containing 1 : 13 :

G2:[\*1],[\*2],[\*3],[\*4],[\*5]

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 12:CLASS  
13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 20:CLASS 21:CLASS 22:CLASS  
23:CLASS 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 31:Atom 32:Atom 33:Atom  
34:Atom 35:Atom 36:Atom 37:CLASS 38:CLASS 40:Atom 41:Atom 42:Atom 43:Atom 44:Atom  
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54:Atom 55:Atom 56:Atom 57:Atom 58:Atom 59:Atom 60:Atom 61:Atom 62:Atom 63:CLASS  
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73:Atom 74:Atom 75:Atom 76:Atom 77:Atom 78:Atom 79:Atom 80:CLASS 81:CLASS 82:CLASS  
83:CLASS 84:CLASS 85:Atom 86:Atom 87:Atom 88:Atom 89:Atom 90:Atom 95:CLASS  
96:CLASS



chain nodes :

8 9

ring nodes :

1 2 3 4 5 6

chain bonds :

4-8 5-9

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

4-8 5-9

exact bonds :

1-2 1-6 2-3 3-4 4-5 5-6

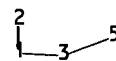
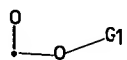
isolated ring systems :

containing 1 :

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 8:CLASS 9:CLASS

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chain nodes :

1 2 3 5

chain bonds :

1-2 1-3 3-5

exact/norm bonds :

1-2 1-3 3-5

G1:C,H,N

Match level :

1:CLASS 2:CLASS 3:CLASS 5:CLASS

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L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss sam

SAMPLE SEARCH INITIATED 08:20:45 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 204 TO ITERATE

100.0% PROCESSED 204 ITERATIONS

50 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 3224 TO 4936

PROJECTED ANSWERS: 656 TO 1544

L2 50 SEA SSS SAM L1

=> s l1 sss ful

FULL SEARCH INITIATED 08:23:13 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 3988 TO ITERATE

100.0% PROCESSED 3988 ITERATIONS

1088 ANSWERS

SEARCH TIME: 00.00.01

L3 1088 SEA SSS FUL L1

=>

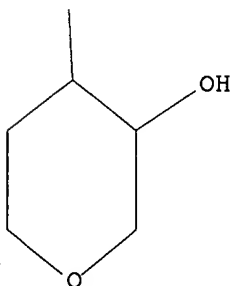
Uploading 09987439 (species 1 sub).str

L4 STRUCTURE UPLOADED

=> d l4

L4 HAS NO ANSWERS

L4 STR





Structure attributes must be viewed using STN Express query preparation.

=> s 14 sub=13 sss sam

SAMPLE SUBSET SEARCH INITIATED 08:24:43 FILE 'REGISTRY'  
SAMPLE SUBSET SCREEN SEARCH COMPLETED - 35 TO ITERATE

100.0% PROCESSED 35 ITERATIONS 29 ANSWERS  
SEARCH TIME: 00.00.01

PROJECTIONS (WITHIN SPECIFIED SUBSET): ONLINE \*\*COMPLETE\*\*  
PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET): 346 TO 1054  
PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET): 257 TO 903

L5 29 SEA SUB=L3 SSS SAM L4

=> s 14 sub=13 sss ful

FULL SUBSET SEARCH INITIATED 08:24:49 FILE 'REGISTRY'  
FULL SUBSET SCREEN SEARCH COMPLETED - 662 TO ITERATE

100.0% PROCESSED 662 ITERATIONS 492 ANSWERS  
SEARCH TIME: 00.00.01

L6 492 SEA SUB=L3 SSS FUL L4

=> s 13 not 16

L7 596 L3 NOT L6

=> s 17

L8 340 L7

=>

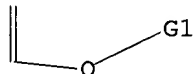
Uploading 09987439 (species 1 sub 2).str

L9 STRUCTURE UPLOADED

=> d 19

L9 HAS NO ANSWERS

L9 STR



G1 C,H,N

Structure attributes must be viewed using STN Express query preparation.

=> s 19 sub=13 sss sam

SAMPLE SUBSET SEARCH INITIATED 08:27:46 FILE 'REGISTRY'  
SAMPLE SUBSET SCREEN SEARCH COMPLETED - 55 TO ITERATE

100.0% PROCESSED 55 ITERATIONS 24 ANSWERS  
SEARCH TIME: 00.00.01

PROJECTIONS (WITHIN SPECIFIED SUBSET): ONLINE \*\*COMPLETE\*\*

09/987,439 (partial search around species)

PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET):	656 TO	1544
PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET):	187 TO	773

L10            24 SEA SUB=L3 SSS SAM L9

=> s 19 sub=13 sss ful

FULL SUBSET SEARCH INITIATED 08:27:54 FILE 'REGISTRY'

FULL SUBSET SCREEN SEARCH COMPLETED - 1082 TO ITERATE

100.0% PROCESSED      1082 ITERATIONS

546 ANSWERS

SEARCH TIME: 00.00.01

L11            546 SEA SUB=L3 SSS FUL L9

=> s 13 not (16 or 11)

L3 MAY NOT BE USED HERE

The L-number entered was not created by a STRUCTURE or SCREEN command.

=> s 16 or 111

L12            742 L6 OR L11

=> s 13 not 112

L13            346 L3 NOT L12

=> s 113

L14            220 L13

=> d 114 1-50 bib,ab,hitstr

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AN 2002:979852 CAPLUS

DN 138:268383

TI Polyphenolic compounds from the leaves of *Koelreuteria paniculata* Laxm

AU Lin, Wen-Han; Deng, Zhi-Wei; Lei, Hai-Ming; Fu, Hong-Zheng; Li, Jun

CS National Research Laboratory of Natural and Biomimetic Drugs, Peking University, Beijing, 100083, Peop. Rep. China

SO Journal of Asian Natural Products Research (2002), 4(4), 287-295

CODEN: JANRFI; ISSN: 1028-6020

PB Taylor &amp; Francis Ltd.

DT Journal

LA English

AB From the fresh leaves of *Koelreuteria paniculata* Laxm (Sapindaceae), four new compds., named Et p-trigallate (1), 3"-O-galloyl-4'-O-galloyl-4-O-galloyl-gallic acid (2), Et p-heptagallate (3) and 3'-galloylquercitrin (4), together with 12 known compds., namely catechin (5), galloylepicatechin (6), isorhamnetin (7), kaempferol-3-O-arabinopyranoside (8), quercetin-3'-O-.beta.-D-arabinopyranoside (9), quercitrin (10), Me p-digallate (11), Me m-digallate (12), p-digalloyl acid (13), m-digalloyl acid (14), hyperin (15) and kaempferol-3-O-.alpha.-L-rhamnoside (16), were isolated by extensive column chromatog. sepn. Their structures were elucidated on the basis of chem. and spectroscopic methods. Compd. 9 was not reported previously with a pyranoside of arabinose at C-3'. Compds. 4 and 9 possessed activity for PTK inhibition.

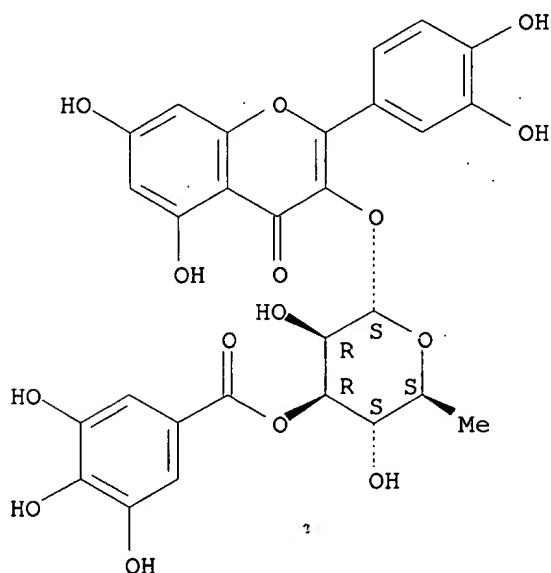
IT 503446-90-0P

RL: BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation) (polyphenolic compds. from leaves of *Koelreuteria paniculata*)

RN 503446-90-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-3-O-(3,4,5-trihydroxybenzoyl)-.alpha.-L-mannopyranosyl]oxy]-2-(3,4-dihydroxyphenyl)-5,7-dihydroxy- (9CI) (CA INDEX NAME)

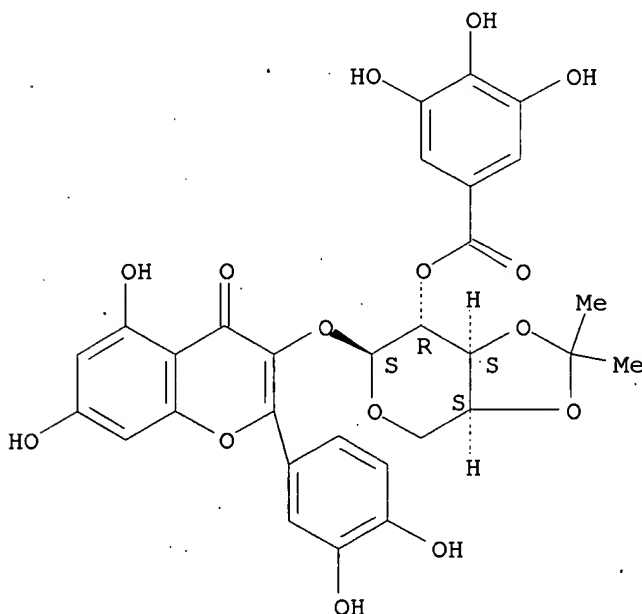
Absolute stereochemistry.



RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD

L14 ANSWER 2 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2002:880569 CAPLUS  
 DN 138:304442  
 TI Synthesis of quercetin 3-O-(2''-galloyl)-.alpha.-L-arabinopyranoside  
 AU Li, Ming; Han, Xiuwen; Yu, Biao  
 CS Dalian Institute of Chemical Physics, State Key Laboratory of Catalyst,  
 Chinese Academy of Sciences, Dalian, 116023, Peop. Rep. China  
 SO Tetrahedron Letters (2002), 43(51), 9467-9470  
 CODEN: TELEAY; ISSN: 0040-4039  
 PB Elsevier Science Ltd.  
 DT Journal  
 LA English  
 AB Quercetin 3-O-(2''-galloyl)-.alpha.-l-arabinopyranoside, a plant flavonol  
 glycoside showing HIV-1 integrase inhibition, antibacterial, and  
 antioxidant activities, was synthesized, with the glycosylation of the  
 flavonol 3-OH being explored.  
 IT **508182-24-9P**  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL  
 (Biological study); PREP (Preparation)  
 (prepn. of quercetin 3-O-(2''-galloyl)-.alpha.-L-arabinopyranoside  
 flavonol glycoside showing HIV-1 integrase inhibition, antibacterial,  
 and antioxidant activities)  
 RN 508182-24-9 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-3-[[3,4-O-(1-  
 methylethylidene)-2-O-(3,4,5-trihydroxybenzoyl)-.alpha.-L-  
 arabinopyranosyl]oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT **508182-35-2P**  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (prepn. of quercetin 3-O-(2''-galloyl)-.alpha.-L-arabinopyranoside  
 flavonol glycoside showing HIV-1 integrase inhibition, antibacterial,

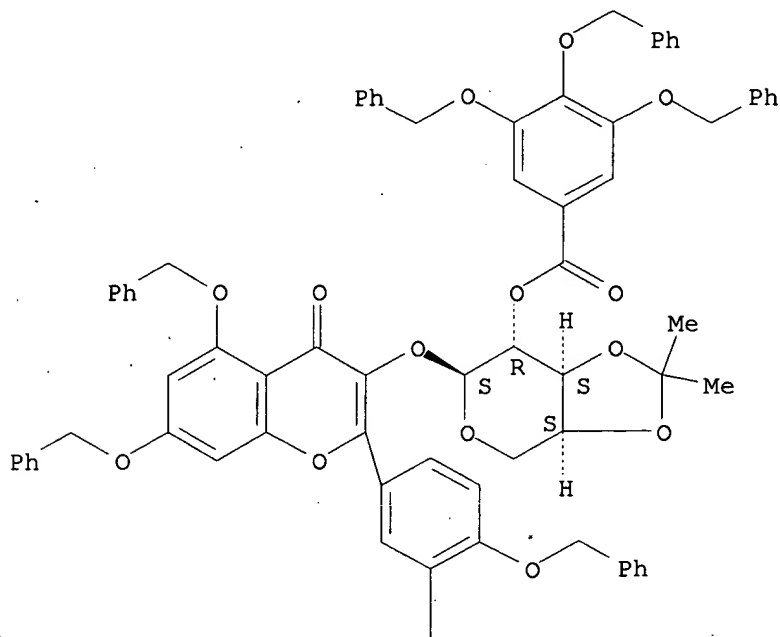
and antioxidant activities)

RN 508182-35-2 CAPLUS

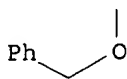
CN 4H-1-Benzopyran-4-one, 2-[3,4-bis(phenylmethoxy)phenyl]-3-[[3,4-O-(1-methylethylidene)-2-O-[3,4,5-tris(phenylmethoxy)benzoyl]-.alpha.-L-arabinopyranosyl]oxy]-5,7-bis(phenylmethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A

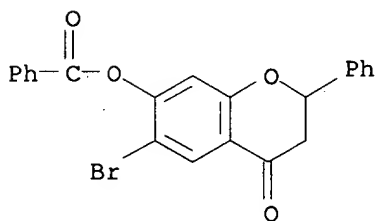


PAGE 2-A

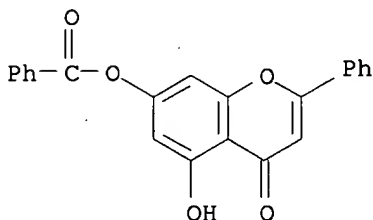


RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

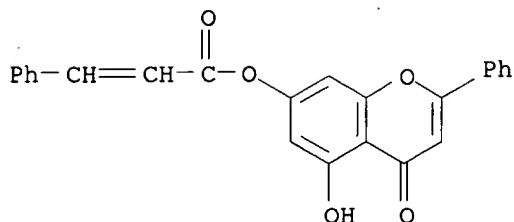
L14 ANSWER 3 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2002:870965 CAPLUS  
 DN 138:221372  
 TI Flavonoids quenching p-semiquinone anion radical  
 AU Lin, Li-sha; Lin, Yong-cheng; Chan, W. L.  
 CS School of Chemistry and Chemical Engineering, Sun Yat-sen (Zhongshan)  
 University, Canton, 510275, Peop. Rep. China  
 SO Zhongshan Daxue Xuebao, Ziran Kexueban (2002), 41(5), 124-125  
 CODEN: CHTHAJ; ISSN: 0529-6579  
 PB Zhongshan Daxue Xuebao Bianjibu  
 DT Journal  
 LA Chinese  
 AB P-Semiquinone anion radical as the model, the effects of the flavonoids  
 scavenging the free radical were studied by the ESR expts. The results  
 showed that the scavenging rates of flavanones were greater than flavones.  
 In the flavanones, the rates of scavenging were related to B-ring  
 substitutes, the greater the electron withdrawing of the substitutes, the  
 better the rate scavenging, and this agreed with the increasing sequence  
 of the dipoles moments and Hammett parameters of the substitutes. The  
 rates of scavenging are probably the useful parameter in revealing the  
 bioactivity of flavonoids.  
 IT **500911-66-0**  
 RL: PRP (Properties)  
 (flavonoids quenching p-semiquinone anion radical)  
 RN 500911-66-0 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 7-(benzoyloxy)-6-bromo-2,3-dihydro-2-phenyl- (9CI)  
 (CA INDEX NAME)



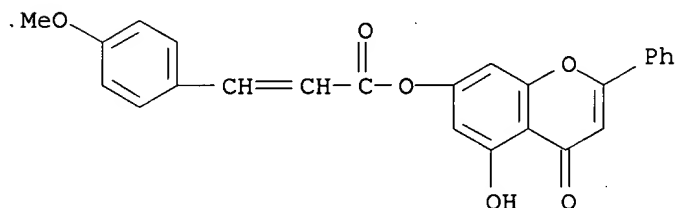
L14 ANSWER 4 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2002:868521 CAPLUS  
 DN 138:89597  
 TI High-performance liquid chromatographic analysis of chrysin derivatives on a Nova-Pak C18 column  
 AU Kim, Kyoung Soon; Shin, Joon Su; Park, Youmie; Lee, Sanghyun; Kim, Yang Bae; Kim, Bak-Kwang  
 CS College of Pharmacy, Seoul National University, Seoul, 151-742, S. Korea  
 SO Archives of Pharmacal Research (2002), 25(5), 613-616  
 CODEN: APHRDQ; ISSN: 0253-6269  
 PB Pharmaceutical Society of Korea  
 DT Journal  
 LA English  
 AB A high-performance liq. chromatog. method has been developed for the sepn. and quantification of chrysin (I) and synthetic chrysin derivs. (12 chrysin alkyl and 7 chrysin acyl derivs.). The chromatog. was performed using a Nova-Pak C18 column. A RP-HPLC was performed by using a binary mixt. (MeOH-10 mM H3PO4) as a mobile phase, and the column temp. was maintained at room temp. A z2 v8A flow rate was 1.0 mL/min, and the effluent was monitored at a wavelength of 280 nm. The retention times for chrysin acyl and alkyl derivs. were within 10 min and 20 min, resp. The abs. recovery of samples were all over 96%. The detection limits were 0.1.apprx.18 ng at S/N = 3 ratio.  
 IT **106009-51-2P**, Chrysin 7-O-benzoate **228405-90-1P**, Chrysin 7-O-cinnamate **228405-91-2P**, Chrysin 7-O-(4-methoxycinnamate) **228405-92-3P**, Chrysin 7-O-p-toluate **228405-93-4P**, Chrysin 7-O-p-fluorobenzoate **228414-39-9P**, Chrysin 7-O-acetylsalicylate  
 RL: PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)  
 (high-performance liq. chromatog. anal. of chrysin derivs. on a Nova-Pak C18 column)  
 RN 106009-51-2 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 7-(benzoyloxy)-5-hydroxy-2-phenyl- (9CI) (CA INDEX NAME)



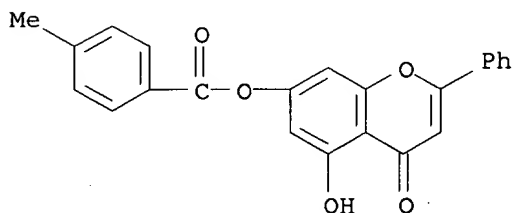
RN 228405-90-1 CAPLUS  
 CN 2-Propenoic acid, 3-phenyl-, 5-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



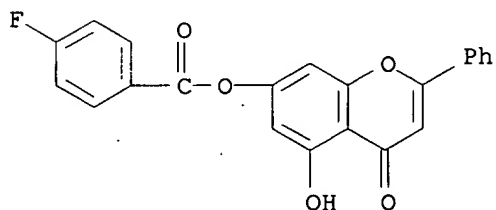
RN 228405-91-2 CAPLUS  
 CN 2-Propenoic acid, 3-(4-methoxyphenyl)-, 5-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



RN 228405-92-3 CAPLUS  
 CN Benzoic acid, 4-methyl-, 5-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)

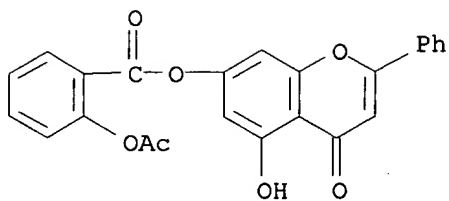


RN 228405-93-4 CAPLUS  
 CN Benzoic acid, 4-fluoro-, 5-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



RN 228414-39-9 CAPLUS  
 CN Benzoic acid, 2-(acetyloxy)-, 5-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)





RE.CNT 6      THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 5 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 2002:798072 CAPLUS

TI Effects of the flavonoid pilloin isolated from Marrubium cylleneum on mitogen-induced lymphocyte transformation

AU Michelis, Fotios; Tiligada, Ekaterini; Skaltsa, Helen; Lazari, Diamanto; Skaltsounis, Alexios-Leandros; Delitheos, Andreas

CS Department of Exp. Pharmacology, School of Medicine, University of Athens, Athens, GR 11527, Greece

SO Pharmaceutical Biology (Lisse, Netherlands) (2002), 40(4), 245-248

CODEN: PHBIFC; ISSN: 1388-0209

PB Swets &amp; Zeitlinger B.V.

DT Journal

LA English

AB Flavonoids are known to exhibit a wide range of biol. functions. In the present study, the possible immunomodulatory and cytotoxic effects of pilloin, a flavone extd. from the Greek endemic herb Marrubium cylleneum were investigated by using the in vitro lymphocyte transformation and the cytotoxicity assays, resp. Apigenin was used as the control flavonoid. Pilloin exerted a cytotoxic action targeted at the transformed lymphoblasts. On the other hand, the glycosylated flavonoid chrysoeriol-7-O-.beta.-D-(3''-E-p-coumaroyl)-glucopyranoside was inactive, providing further evidence that glycosylation may eliminate the effects of aglycons.

IT 103450-98-2

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

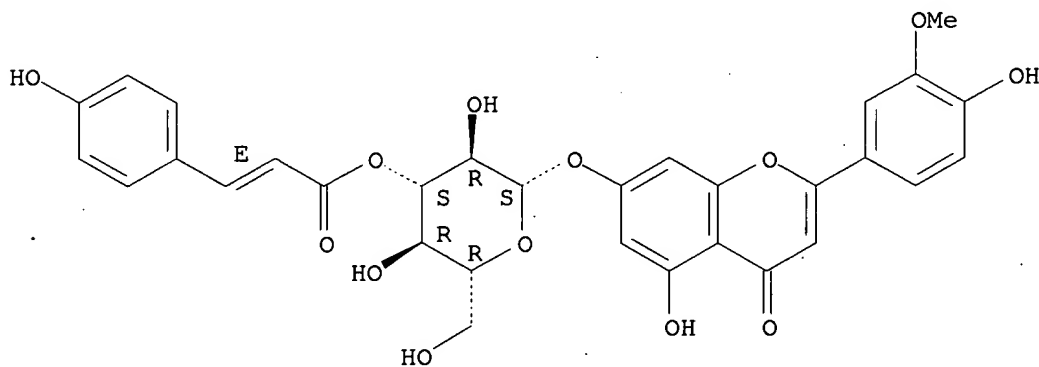
(comparison; effects of the flavonoid pilloin isolated from Marrubium cylleneum on mitogen-induced lymphocyte transformation)

RN 103450-98-2 CAPLUS

CN 4H-1-Benzopyran-4-one, 5-hydroxy-2-(4-hydroxy-3-methoxyphenyl)-7-[[3-O-[3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.beta.-D-glucopyranosyl]oxy]- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 6 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 2002:594836 CAPLUS

DN 137:140383

TI Procedure for the production of flavone derivatives

IN Buchholz, Herwig; Perruchon, Sophie

PA Merck Patent GmbH, Germany

SO PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

*Common Inv.*

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002060889	A1	20020808	WO 2002-EP233	20020112
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10104350	A1	20020814	DE 2001-10104350	20010201

PRAI DE 2001-10104350 A 20010201

OS CASREACT 137:140383; MARPAT 137:140383

AB The invention relates to a method for producing flavone derivs., such as I [R,R1,R2,R3,R4,R6,R7,R8,R9,R10 = H, OH, alkyl, alkenyl, ether, ester, aryl, O-glycosyl, alkenoxy, aryloxy, halogen, nitro, amino], wherein a 2-hydroxyacetophenone compd. II is metalized with a lithium compd. at low temps. and subsequently reacted with keto compd. III (R5 = halogen, alkoxyl, ester). The ratio of the molar equivalents of the lithium compd. to the functional groups which are to be metalized of the II is 1-1.2. The resulting .beta.-diketone compd. is subsequently cyclized by heat in an acidic medium to produce flavone deriv. I.

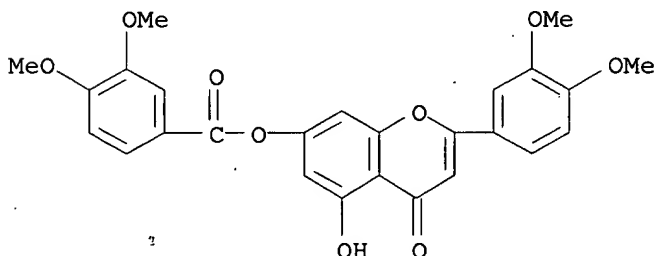
IT 444911-15-3P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(prepn. of flavone derivs. utilizing lithiation of substituted acetophenone deriv. as a key step)

RN 444911-15-3 CAPLUS

CN Benzoic acid, 3,4-dimethoxy-, 2-(3,4-dimethoxyphenyl)-5-hydroxy-4-oxo-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 7 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 2002:402851 CAPLUS

DN 138:183934

TI Polyphenols from *Ballota acetabulosa*

AU Sahpaz, S.; Skaltsounis, A.-L.; Bailleul, F.

CS Faculte de Pharmacie, Laboratoire de Pharmacognosie, Lille, F-59006, Fr.

SO Biochemical Systematics and Ecology (2002), 30(6), 601-604

CODEN: BSECBU; ISSN: 0305-1978

PB Elsevier Science Ltd.

DT Journal

LA English

AB The dried, flowering aerial parts of *Ballota acetabulosa* were powd. and extd. successively with CH<sub>2</sub>Cl<sub>2</sub> and methanol. Fractions contg. polyphenols detected by TLS after spraying with 2-aminoethylphenylborate agent were subjected to open column chromatog. on normal phase silica gel 60H using cyclohexane/EtOAc/isopropanol mixt. of increasing polarity as eluent. The products were chrysoeriol-7-O-.beta.-(3"-Z-p-cuomaroyl)glucopyranoside (I), chrysoeriol-7-O-.beta.-(3"-E-p-cuomaroyl)-glucopyranoside, chrysoeriol-7-O-.beta.-glucopyranoside, apigenin-7-O-.beta.-(3"-E-p-cuomaroyl)-glucopyranoside, apigenin-7-O-.beta.-glucopyranoside, and one phenylethanoid glucoside, eutigoside A. I is a newly naturally occurring flavonoid characterized as the cis isomer of chrysoeriol-7-O-.beta.-(3"-p-cuomaroyl)glucopyranoside by its spectroscopic data. The complete structure of I was confirmed after acid hydrolysis providing chrysoeriol, p-cuomarcic acid and D-glucose identified by chromatog. comparison with authentic samples and detn. of optical rotation for D-glucose.

IT 103450-98-2P 498547-25-4P

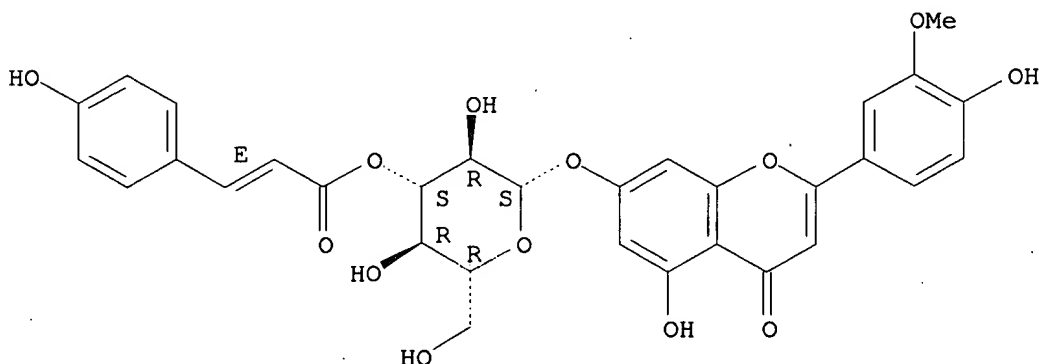
RL: BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation) (polyphenols from *Ballota acetabulosa*)

RN 103450-98-2 CAPLUS

CN 4H-1-Benzopyran-4-one, 5-hydroxy-2-(4-hydroxy-3-methoxyphenyl)-7-[[3-O-[3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.beta.-D-glucopyranosyl]oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

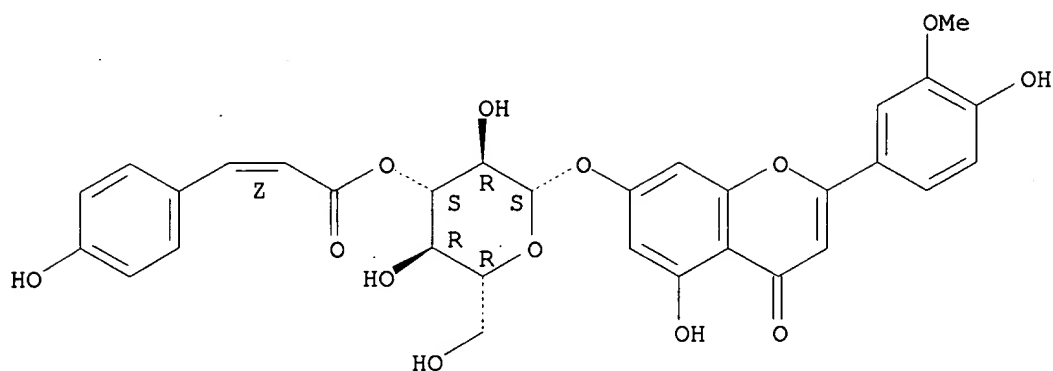
Double bond geometry as shown.



RN 498547-25-4 CAPLUS

CN 4H-1-Benzopyran-4-one, 5-hydroxy-2-(4-hydroxy-3-methoxyphenyl)-7-[[3-O-[(2Z)-3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.beta.-D-glucopyranosyl]oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



RE.CNT 9      THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 8 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 2002:366295 CAPLUS

DN 137:229281

TI An acylated kaempferol glycoside from flowers of *Foeniculum vulgare* and *F. dulce*

AU Soliman, Fathy M.; Shehata, Afaf H.; Khaleel, Amal E.; Ezzat, Shahera M.

CS Pharmacognosy Department, Faculty of Pharmacy, Cairo University, Cairo, 11562, Egypt

SO Molecules [online computer file] (2002), 7(2), 245-251

CODEN: MOLEFW; ISSN: 1420-3049

URL: <http://www.mdpi.org/molecules/papers/702200245.pdf>

PB Molecular Diversity Preservation International

DT Journal; (online computer file)

LA English

AB An acylated kaempferol glycoside, namely kaempferol-3-O-.alpha.-L-(2'',3''-di-E-p-coumaroyl)-rhamnoside was isolated from the flowers of *Foeniculum vulgare* Mill. and *F. dulce* DC. It is thus isolated for the first time from family Apiaceae. In addn., the different organs of both plants afforded six flavonoid glycosides - namely afzelin (kaempferol-3-O-.alpha.-L-rhamnoside), quercitrin, isorhamnetin-3-O-.beta.-D-glucoside, isoquercitrin, rutin, and miquelianin (quercetin-3-O-.beta.-D-glucuronide). Structure elucidation of the above mentioned flavonoids was achieved by UV, 1H- and 13C-NMR, 1H-1H COSY, HMQC and EI-MS.

IT 133740-25-7

RL: BSU (Biological study, unclassified); BIOL (Biological study)

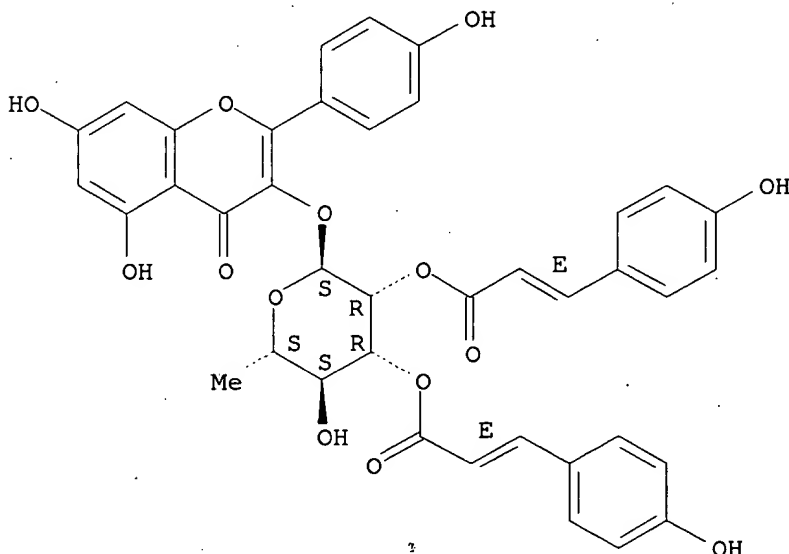
(acylated kaempferol glycoside from *Foeniculum vulgare* and *F. dulce*)

RN 133740-25-7 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-2,3-bis-O-[(2E)-3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

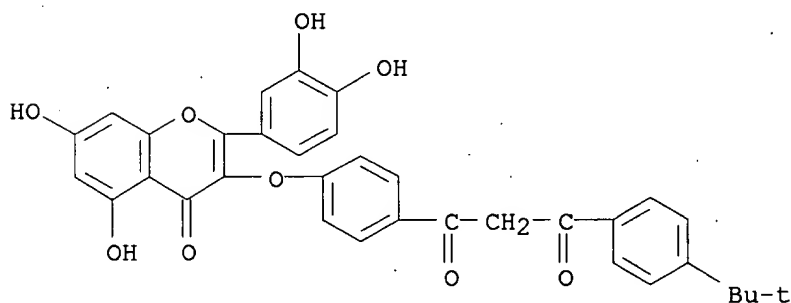


RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 8 OF 47 USPATFULL  
 AN 2002:198245 USPATFULL  
 TI Galenical formulation  
 IN Pfluecker, Frank, Darmstadt, GERMANY, FEDERAL REPUBLIC OF  
 Buenger, Joachim, Gross-Umstadt, GERMANY, FEDERAL REPUBLIC OF  
 Driller, Hans-Juergen, Gross-Umstadt, GERMANY, FEDERAL REPUBLIC OF  
 Buchholz, Herwig, Frankfurt, GERMANY, FEDERAL REPUBLIC OF  
 Roskopf, Ralf, Muenster, GERMANY, FEDERAL REPUBLIC OF  
 PI US 2002106338 A1 20020808  
 AI US 2001-987439 A1 20011114 (9) ← *Appl. PG Pub.*  
 PRAI DE 2000-10056400 20001114  
 DT Utility  
 FS APPLICATION  
 LREP MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON BLVD., SUITE  
 1400, ARLINGTON, VA, 22201  
 CLMN Number of Claims: 20  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 1228  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB The invention relates to compounds of the formula I ##STR1##

where R.sup.1, R.sup.2, R.sup.3, R.sup.4 and R.sup.5 have the meanings given in claim 1. The compound is suitable in particular for use in skin care compositions. They protect, firstly, against harmful oxidation reactions and, secondly, also act as UV filters.

IT **425366-51-4P 425366-52-5P 425366-53-6P**  
 (prepn. of flavonoid compds. for use against oxidative stress and UV radiation)  
 RN 425366-51-4 USPATFULL  
 CN 1,3-Propanedione, 1-[4-[[2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-4-oxo-4H-1-benzopyran-3-yl]oxy]phenyl]-3-[4-(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)

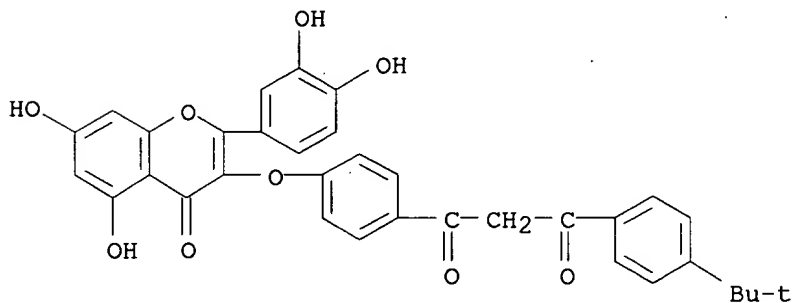


RN 425366-52-5 USPATFULL  
 CN 2-Propenoic acid, 3-phenyl-, 2-[3,4-bis[(1-oxo-3-phenyl-2-propenyl)oxy]phenyl]-4-oxo-4H-1-benzopyran-5,7-diyl ester (9CI) (CA INDEX NAME)

L14 ANSWER 9 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2002:364015 CAPLUS  
 DN 136:385971  
 TI Flavonoid compounds for use against oxidative stress and UV radiation  
 IN Pfluecker, Frank; Buenger, Joachim; Driller, Hans-Juergen; Buchholz, Herwig; Roskopf, Ralf  
 PA Merck Patent GmbH, Germany  
 SO Eur. Pat. Appl., 30 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA German  
 FAN.CNT 1

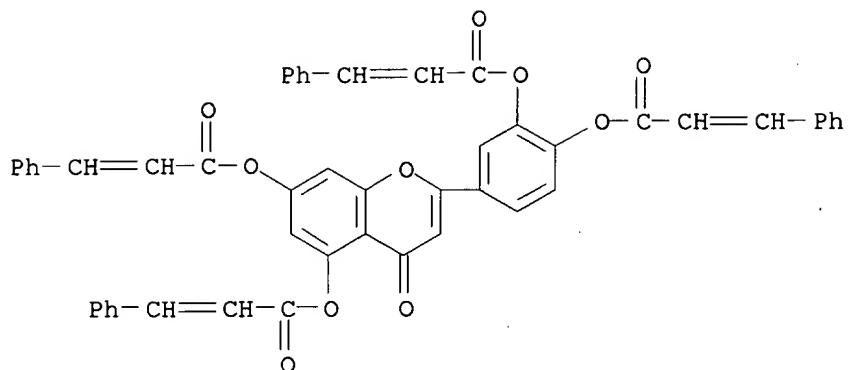
Appl.

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1205475	A1	20020515	EP 2001-126541	20011114
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	DE 10056400	A1	20020523	DE 2000-10056400	20001114
	JP 2002193962	A2	20020710	JP 2001-347280	20011113
	US 2002106338	A1	20020808	US 2001-987439	20011114
PRAI	DE 2000-10056400	A	20001114		
OS	MARPAT 136:385971				
AB	Flavonoid compds., e.g I [X = O, S, NH; Y = O, S, NH; R1 - R5 = H, OH, OA; A = UV radiation absorbing group in the UVA and/or UVB range, such as A1, A2, A3, A4; Z = (CH2)m; Z1 = (SO3M)n; Z2 = (SO3M)k; n = 0 - 3; m = 0, 1; k = 0 - 4; M = H, Na, K; dashed line = single or double bond], were prepd. for use against oxidative stress and UV radiation. Thus, flavonoid II was prepd. from luteolin and 4-MeOC6H4CH:CHCOCl-(E) in CH2Cl2 contg. pyridine. Cosmetic formulations contg. II were prepd. for use as: skin lotions and creams, and sunscreen sprays, gels and lotions.				
IT	<b>425366-51-4P 425366-52-5P 425366-54-7P</b> RL: COS (Cosmetic use); FFD (Food or feed use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of flavonoid compds. for use against oxidative stress and UV radiation)				
RN	425366-51-4 CAPLUS				
CN	1,3-Propanedione, 1-[4-[[2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-4-oxo-4H-1-benzopyran-3-yl]oxy]phenyl]-3-[4-(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)				



RN 425366-52-5 CAPLUS  
 CN 2-Propenoic acid, 3-phenyl-, 2-[3,4-bis[(1-oxo-3-phenyl-2-propenyl)oxy]phenyl]-4-oxo-4H-1-benzopyran-5,7-diyl ester (9CI) (CA INDEX

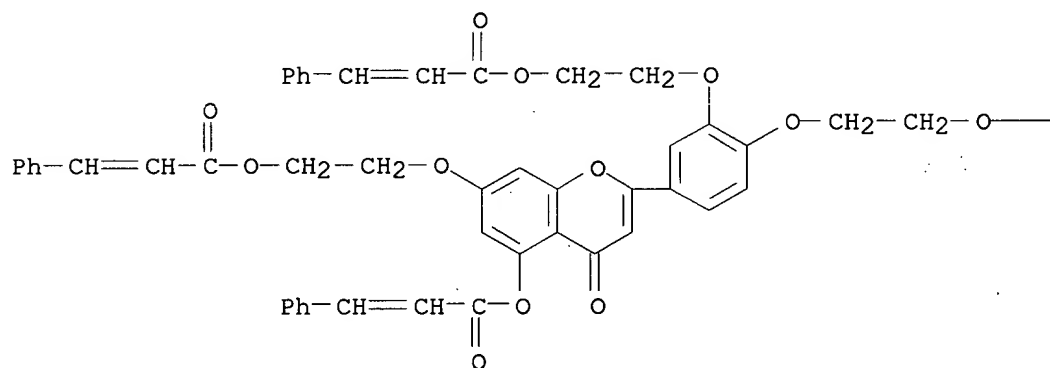




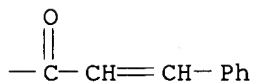
RN 425366-53-6 USPATFULL

CN 2-Propenoic acid, 3-phenyl-, [4-[4-oxo-5-[(1-oxo-3-phenyl-2-propenyl)oxy]-7-[2-[(1-oxo-3-phenyl-2-propenyl)oxy]ethoxy]-4H-1-benzopyran-2-yl]-1,2-phenylene]bis(oxy-2,1-ethanediyl) ester (9CI) (CA INDEX NAME)

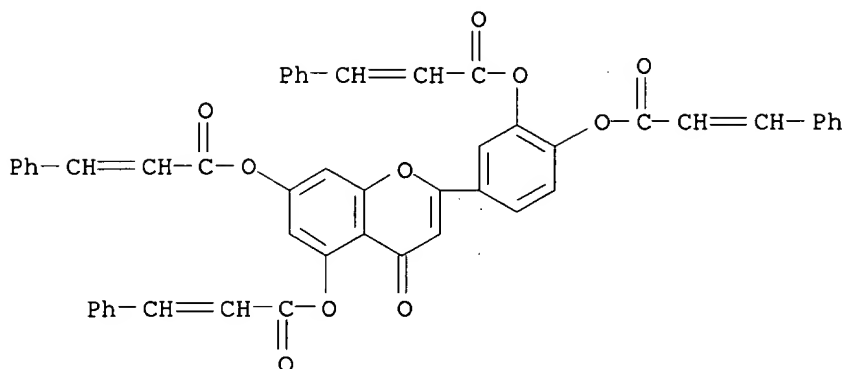
PAGE 1-A



PAGE 1-B



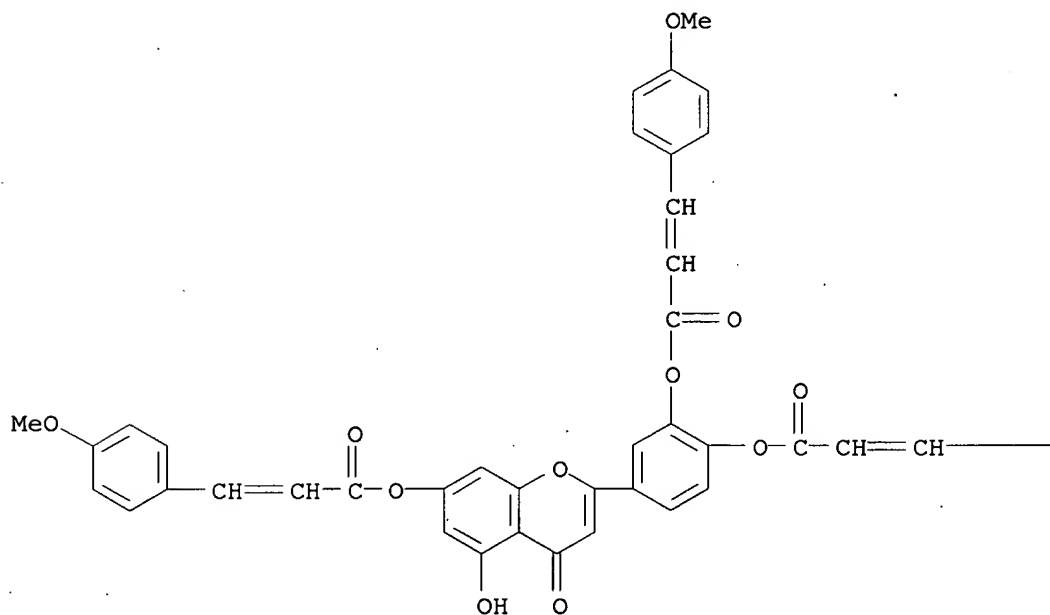
NAME)

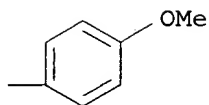


*Elected species.*

RN 425366-54-7 CAPLUS  
 CN 2-Propenoic acid, 3-(4-methoxyphenyl)-, 4-[5-hydroxy-7-[[3-(4-methoxyphenyl)-1-oxo-2-propenyl]oxy]-4-oxo-4H-1-benzopyran-2-yl]-1,2-phenylene ester (9CI) (CA INDEX NAME)

PAGE 1-A



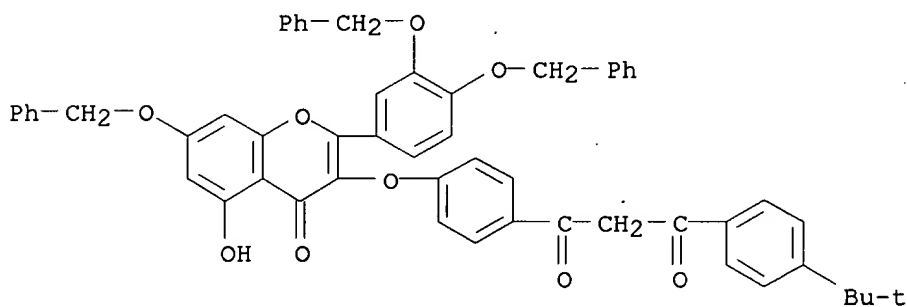


IT 425366-57-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. of flavonoid compds. for use against oxidative stress and UV radiation)

RN 425366-57-0 CAPLUS

CN 1,3-Propanedione, 1-[4-[[2-[[3,4-bis(phenylmethoxy)phenyl]-5-hydroxy-4-oxo-7-(phenylmethoxy)-4H-1-benzopyran-3-yl]oxy]phenyl]-3-[4-(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 10 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 2002:303775 CAPLUS

DN 137:169339

TI Regioselective syntheses of 6-(1,1-dimethylallyl)- and 8-(3,3-dimethylallyl) chrysins

AU Daskiewicz, Jean-Baptiste; Bayet, Christine; Barron, Denis

CS Universite Claude Bernard-Lyon 1, Laboratoire des Produits Naturels (CNRS-UMR 5013), UFR de Chimie-Biochimie, Villeurbanne, F-69622, Fr.

SO Tetrahedron (2002), 58(18), 3589-3595

CODEN: TETRAB; ISSN: 0040-4020

PB Elsevier Science Ltd.

DT Journal

LA English

OS CASREACT 137:169339

AB The first regioselective syntheses of 6-(1,1-dimethylallyl)- and 8-(3,3-dimethylallyl) chrysins have been designed. Claisen rearrangement of protected 5-O-(3,3-dimethylallyl) chrysin in N,N-diethylaniline at 200-217.degree.C gave selective access to the 8-(3,3-dimethylallyl) isomer. Similar rearrangement in N,N-diethylbutylamine at 140-160.degree.C, or in cycloheptane/Eu(fod)<sub>3</sub> at 100.degree.C, led to the formation of the 6-(1,1-dimethylallyl) isomer. Four different protecting groups for position 7 of chrysin have been compared, and found to follow the order of interest Bz>MOM>TBDPS>MEM.

IT 106009-51-2P 447451-05-0P 447451-06-1P

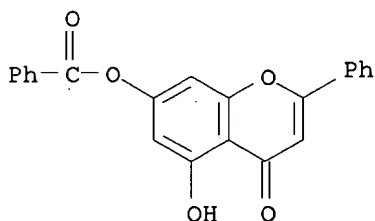
447451-07-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of 6-(1,1-dimethylallyl)- and 8-(3,3-dimethylallyl) chrysins)

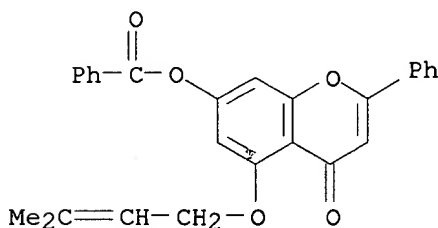
RN 106009-51-2 CAPLUS

CN 4H-1-Benzopyran-4-one, 7-(benzoyloxy)-5-hydroxy-2-phenyl- (9CI) (CA INDEX NAME)



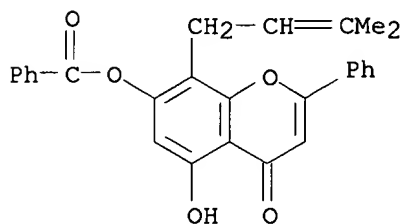
RN 447451-05-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 7-(benzoyloxy)-5-[(3-methyl-2-butenyl)oxy]-2-phenyl- (9CI) (CA INDEX NAME)



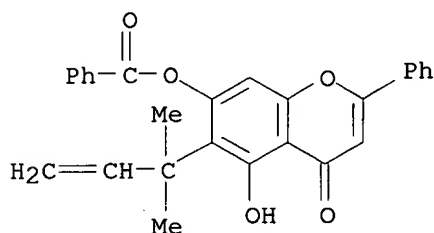
RN 447451-06-1 CAPLUS

CN 4H-1-Benzopyran-4-one, 7-(benzoyloxy)-5-hydroxy-8-(3-methyl-2-butenyl)-2-phenyl- (9CI) (CA INDEX NAME)



RN 447451-07-2 CAPLUS

CN 4H-1-Benzopyran-4-one, 7-(benzoyloxy)-6-(1,1-dimethyl-2-propenyl)-5-hydroxy-2-phenyl- (9CI) (CA INDEX NAME)



RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 11 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 2002:285447 CAPLUS

DN 137:32228

TI Acylated and Non-Acylated Flavonol monoglycosides from the Indian Minor Spice Nagkesar (*Mammea longifolia*)

AU Rao, Lingamallu Jagan Mohan; Yada, Hiroshi; Oho, Hiroshi; Yoshida, Mitsuru

CS National Food Research Institute, Tsukuba, Ibaraki, 305-8642, Japan

SO Journal of Agricultural and Food Chemistry (2002), 50(11), 3143-3146

CODEN: JAFCAU; ISSN: 0021-8561

PB American Chemical Society

DT Journal

LA English

AB A methanol ext. of nagkesar (buds of *Mammea longifolia*), which showed strong radical scavenging activity, yielded 13 compds. by sepns. using column chromatog. and HPLC. Structure elucidation of these compds. was achieved by 1H and 13C NMR, including DQF-COSY, TOCSY, DEPT, HMQC, HSQC, and HMBC. They include 2 new compds., quercetin 3-O-(2'',4''-di-E-p-coumaroyl)-.alpha.-L-rhamnopyranoside and quercetin 3-O-(3'',4''-di-E-p-coumaroyl)-.alpha.-L-rhamnopyranoside, along with known compds. kaempferol 3-O-(2'',4''-di-E-p-coumaroyl)-.alpha.-L-rhamnopyranoside, kaempferol 3-O-(3'',4''-di-E-p-coumaroyl)-.alpha.-L-rhamnopyranoside, kaempferol 3-O-.alpha.-L-rhamnopyranoside, quercetin 3-O-.alpha.-L-rhamnopyranoside, shikimic acid, kaempferol 3-O-.beta.-D-glucopyranoside, quercetin 3-O-.beta.-D-glucopyranoside, and .beta.-sitosterol 3-O-.beta.-D-glucopyranoside.

IT 166321-99-9 166582-05-4 437615-42-4

437615-43-5

RL: ANT (Analyte); OCU (Occurrence, unclassified); ANST (Analytical study); OCCU (Occurrence)

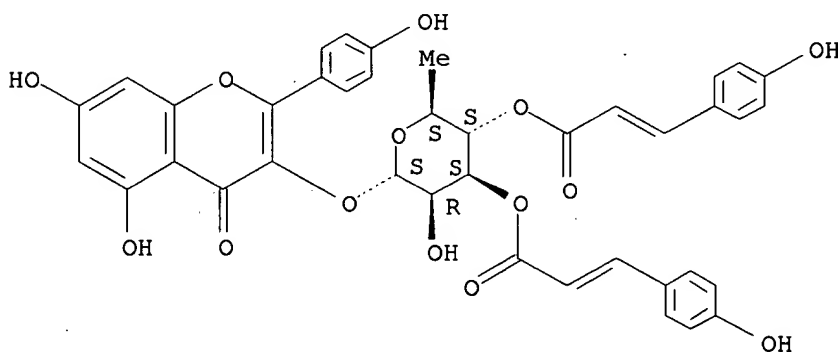
(acylated and non-acylated flavonol monoglycosides from Indian minor spice nagkesar)

RN 166321-99-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-3,4-bis-O-[3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

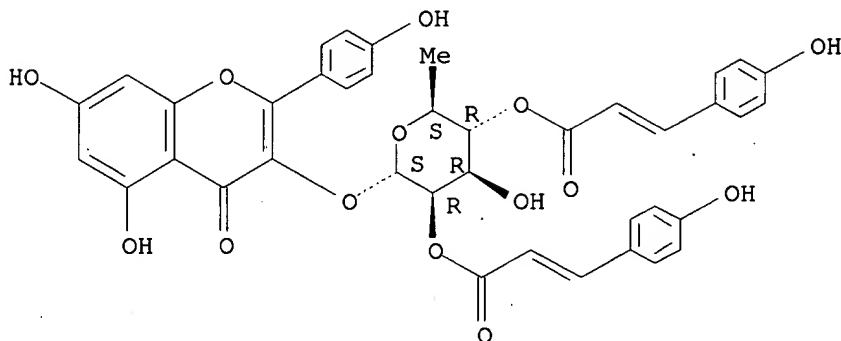
Double bond geometry unknown.



RN 166582-05-4 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-2,4-bis-O-[3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)-(9CI) (CA INDEX NAME)

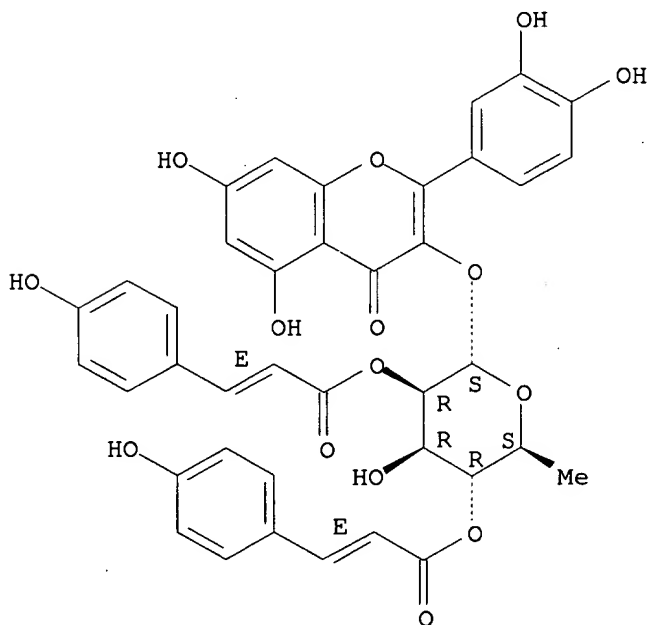
Absolute stereochemistry.  
Double bond geometry unknown.



RN 437615-42-4 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-2,4-bis-O-[(2E)-3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-2-(3,4-dihydroxyphenyl)-5,7-dihydroxy- (9CI) (CA INDEX NAME)

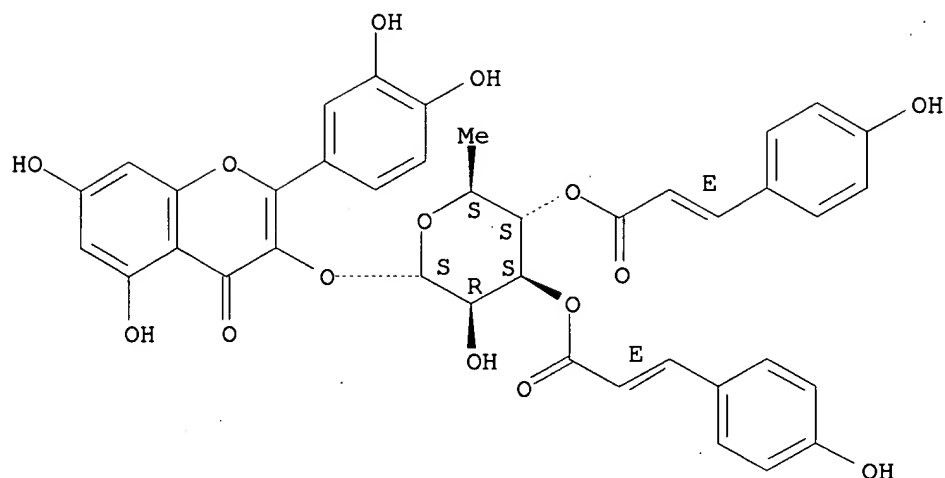
Absolute stereochemistry.  
Double bond geometry as shown.



RN 437615-43-5 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-3,4-bis-O-[(2E)-3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-2-(3,4-dihydroxyphenyl)-5,7-dihydroxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.

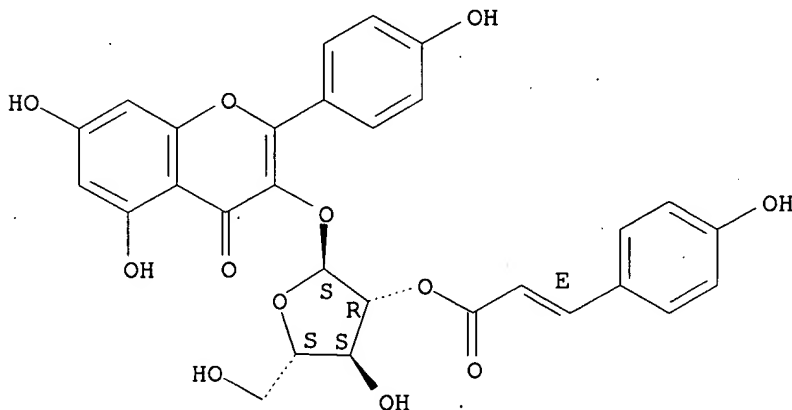


RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT



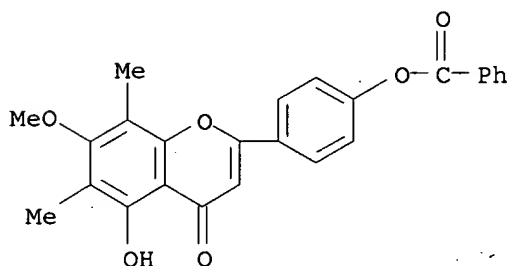
L14 ANSWER 12 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2002:222442 CAPLUS  
 DN 137:44241  
 TI Flavonoids from the flowers of *Prunus spinosa* L  
 AU Olszewska, Monika; Wolbis, Maria  
 CS Department of Pharmacognosy, Institute of Technology and Chemistry of  
 Drugs, Medical University of Lodz, Lodz, 90-151, Pol.  
 SO Acta Poloniae Pharmaceutica (2001), 58(5), 367-372  
 CODEN: APPHAX; ISSN: 0001-6837  
 PB Polish Pharmaceutical Society  
 DT Journal  
 LA English  
 AB Eight flavonoids were isolated from the flowers of *Prunus spinosa*:  
 kaempferol, quercetin, kaempferol 3-O-.alpha.-L-arabinofuranoside,  
 quercetin 3-O-.alpha.-L-arabinofuranoside, kaempferol 3-O-.alpha.-L-  
 rhamnopyranoside, kaempferol 7-O-.alpha.-L-rhamnopyranoside, kaempferol  
 3-O-.beta.-D-xylopyranoside, kaempferol 3-O-(2''-E-p-coumaroyl)-.alpha.-L-  
 arabinofuranoside. The last three have been found for the first time in  
 this plant. The structure of the compds. was detd. by means of chem. and  
 spectral methods (UV, IR, LSI MS, 1H NMR, 13C NMR).  
 IT **67214-05-5P**, Kaempferol 3-O-[2''-(E)-p-coumaroyl]-.alpha.-L-  
 arabinofuranoside  
 RL: NPO (Natural product occurrence); PRP (Properties); PUR (Purification  
 or recovery); BIOL (Biological study); OCCU (Occurrence); PREP  
 (Preparation)  
 (isolation of flavonoids from the flowers of *Prunus spinosa* L)  
 RN 67214-05-5 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-(4-hydroxyphenyl)-3-[[2-O-[(2E)-3-  
 (4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-arabinofuranosyl]oxy]- (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
 Double bond geometry as shown.



RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

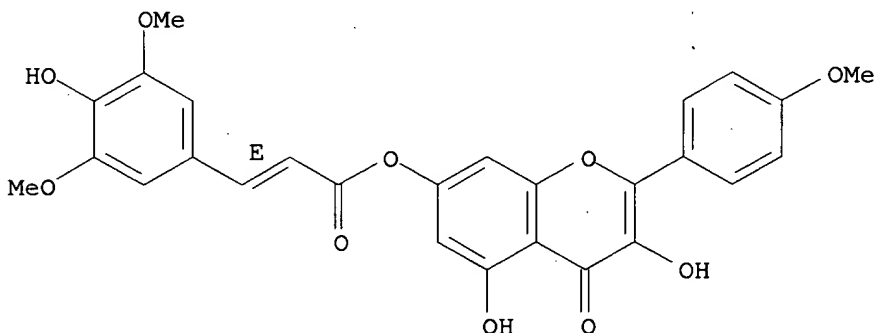
L14 ANSWER 13 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2002:203146 CAPLUS  
 DN 136:352655  
 TI A new triterpenic acid from *Eucalyptus robusta*  
 AU Khare, Monika; Srivastava, S. K.; Singh, A. K.  
 CS Central Institute of Medicinal and Aromatic Plants, Lucknow, 226 015, India  
 SO Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (2002) 41B(2), 440-445  
 CODEN: IJSBDB; ISSN: 0376-4699  
 PB National Institute of Science Communication  
 DT Journal  
 LA English  
 AB A new triterpene "Robustanic acid" (I) has been isolated from the leaves of *Eucalyptus robusta* along with, ursolic acid lactone, sideroxylin, 2.alpha.,3.beta.-dihydroxy-urs-12-ene-28-oic acid, ursolic acid, .beta.-sitosterol-.beta.-D-glucoside and gallic acid. On the other hand, stem results in the isolation and characterization of .beta.-sitosterol and an isomeric mixt. of oleanolic acid and ursolic acid. The structure of new triterpenic acid has been deduced as 3.beta.-hydroxy, 11.alpha.-methoxy-urs-12-ene-28-oic acid on the basis of spectroscopic data and chem. correlation with compds. of established structure. Presence of compds. 2.alpha.,3.beta.-dihydroxy-urs-12-ene-28-oic acid, ursolic acid, .beta.-sitosterol-.beta.-D-glucoside, gallic acid and oleanolic acid in *E. robusta* is being reported for the first time.  
 IT **421587-94-2P**, 4'-O-Benzoylsideroxylin  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (prepn. and properties of)  
 RN 421587-94-2 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 2-[4-(benzoyloxy)phenyl]-5-hydroxy-7-methoxy-6,8-dimethyl- (9CI) (CA INDEX NAME)



RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 14 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2002:49205 CAPLUS  
 DN 136:259969  
 TI Composition of *Tamarix hokenakeri* and *T. ramosissima*  
 AU Bikbulatova, T. N.; Korul'kina, L. M.  
 CS Al'-Farabi Kazakh State National University, Almaty, 480012, Kazakhstan  
 SO Chemistry of Natural Compounds (Translation of *Khimiya Prirodnikh Soedinenii*) (2001), 37(3), 216-218  
 CODEN: CHNCA8; ISSN: 0009-3130  
 PB Kluwer Academic/Consultants Bureau  
 DT Journal  
 LA English  
 AB The qual. compn. and quant. content of certain groups of natural compds. of *Tamarix hokenakeri* and *T. ramosissima* growing in the Republic of Kazakhstan were studied.  
 IT **404898-98-2P**  
 RL: NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)  
 (from *Tamarix hokenackeri* and *T. ramosissima*)  
 RN 404898-98-2 CAPLUS  
 CN 2-Propenoic acid, 3-(4-hydroxy-3,5-dimethoxyphenyl)-, 3,5-dihydroxy-2-(4-methoxyphenyl)-4-oxo-4H-1-benzopyran-7-yl ester, (2E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

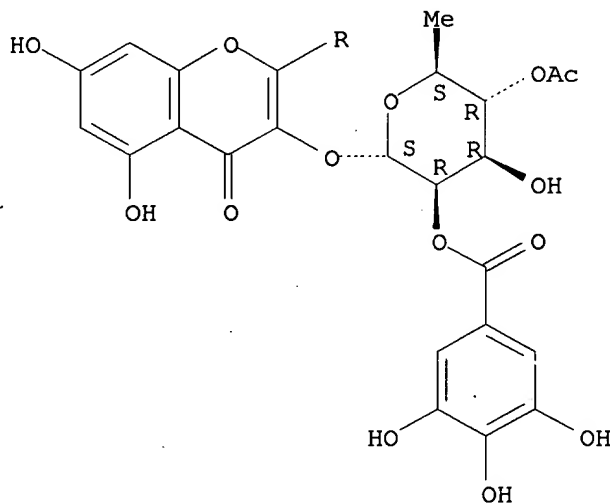


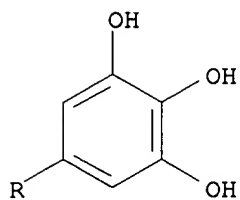
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 15 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2001:883593 CAPLUS  
 DN 136:229411  
 TI Acylated flavonol glycosides from *Eugenia jambolana* leaves  
 AU Mahmoud, Ibrahim I.; Marzouk, Mohamed S. A.; Moharram, Fatma A.; El-Gindi, Mohamed R.; Hassan, Amel M. K.  
 CS Pharmacognosy Department, Helwan University, Faculty of Pharmacy, Cairo, Helwan, Egypt  
 SO Phytochemistry (2001), 58(8), 1239-1244  
 CODEN: PYTCAS; ISSN: 0031-9422  
 PB Elsevier Science Ltd.  
 DT Journal  
 LA English  
 AB Two acylated flavonol glycosides and 15 known polyphenols have been isolated and identified from the leaves of *Eugenia jambolana* Lam. The structures of the new compds. were identified as 3-O-(4''-O-acetyl)-.alpha.-L-rhamnopyranoside of mearnsetin (myricetin 4'-Me ether) and myricetin 3-O-(4''-O-acetyl-2''-O-galloyl)-.alpha.-L-rhamnopyranoside. The complete structure elucidation of all isolated metabolites based on chem. and spectroscopic methods of anal. (UV, 1D and 2D NMR) as well as neg. ESI-MS with and without CID in-source fragmentation.  
 IT **402954-90-9P**  
 RL: NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)  
 (acylated flavonol glycosides from *Eugenia jambolana* leaves)  
 RN 402954-90-9 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-[[4-O-acetyl-6-deoxy-2-O-(3,4,5-trihydroxybenzoyl)-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(3,4,5-trihydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A





RE.CNT 27      THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 16 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 2001:878335 CAPLUS

DN 136:151126

TI A New Type of Mixed Anhydride and Its Applications to the Synthesis of 7-Substituted 8-Chloro-5,5-dioxoimidazo[1,2-b][1,4,2]benzodithiazines with in Vitro Antitumor Activity

AU Brzozowski, Zdzislaw; Saczewski, Franciszek

CS Department of Chemical Technology of Drugs, Medical University of Gdansk, Gdansk, 80-416, Pol.

SO Journal of Medicinal Chemistry (2002), 45(2), 430-437

CODEN: JMCMAR; ISSN: 0022-2623

PB American Chemical Society

DT Journal

LA English

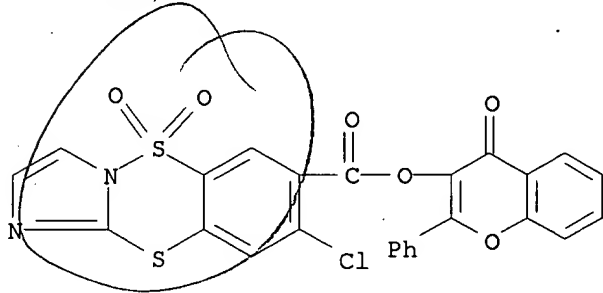
AB A new series of 8-chloro-5,5-dioxoimidazo[1,2-b][1,4,2]benzodithiazine derivs. with heteroaryloxycarbonyl or heteroarylcarbonyl substituents at position 7 have been synthesized as potential antitumor agents. In this procedure, a novel type of mixed anhydride was prepd. from 8-chloro-5,5-dioxoimidazo[1,2-b][1,4,2]benzodithiazine-7-carboxylic acid and methanesulfonyl chloride, which in turn was condensed either with heteroarylamines or heteroarylhydroxy compds. All the compds. prepd. were screened at the National Cancer Institute (NCI) for their activities against a panel of 60 tumor cell lines, and relationships between structure and antitumor activity in vitro are discussed. Some of the compds. exhibited rather moderate activity against one or more human tumor cell lines. The prominent compd. with remarkable activity (log GI50 < -8) and selectivity for the leukemia HL-60(TB) cell line was 2-methyl-8-quinolyl 8-chloro-5,5-dioxoimidazo[1,2-b][1,4,2]benzodithiazine-7-carboxylate 24.

IT 393843-23-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and in vitro antitumor activity of 8-chloro-5,5-dioxoimidazo[1,2-b][1,4,2]benzodithiazines)

RN 393843-23-7 CAPLUS

CN Imidazo[1,2-b][1,4,2]benzodithiazine-7-carboxylic acid, 8-chloro-, 4-oxo-2-phenyl-4H-1-benzopyran-3-yl ester, 5,5-dioxide (9CI) (CA INDEX NAME)



RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 17 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 2001:771414 CAPLUS

DN 136:177510

TI Andinermals A-C, antiplasmodial constituents from Andira inermis

AU Kraft, Carola; Jenett-Siems, Kristina; Siems, Karsten; Solis, Pablo N.; Gupta, Mahabir P.; Bienzle, Ulrich; Eich, Eckart

CS Institut für Pharmazie (Pharmazeutische Biologie), Freie Universität Berlin, Berlin, D-14195, Germany

SO Phytochemistry (2001), 58(5), 769-774

CODEN: PYTCAS; ISSN: 0031-9422

PB Elsevier Science Ltd.

DT Journal

LA English

AB Bioassay-guided fractionation of the leaves from *Andira inermis* was undertaken as part of a screening program to verify the traditional use of herbal remedies against malaria. Among the isolated phenolic compds. three novel 2-aryl-benzofuran-3-carbaldehydes, andinermal A-C, were obtained together with a new flavanonol glycoside, taxifolin-3-O-(3''-O-trans-cinnamoyl)-.alpha.-L-rhamnopyranoside.

IT 398473-13-7

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

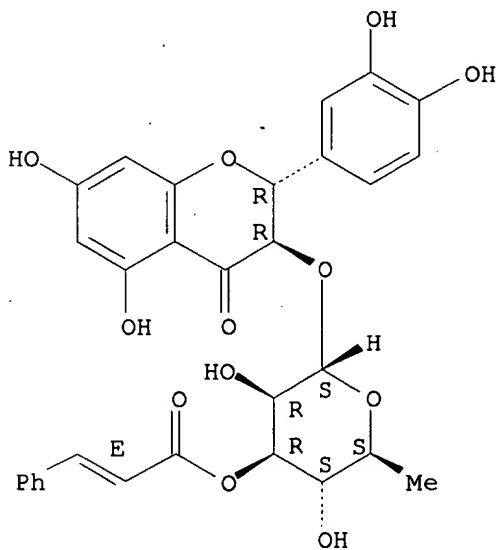
(andinermals A-C, antiplasmodial constituents from *Andira inermis*)

RN 398473-13-7 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-3-O-[(2E)-1-oxo-3-phenyl-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-2-(3,4-dihydroxyphenyl)-2,3-dihydro-5,7-dihydroxy-, (2R,3R)- (9CI) (CA INDEX NAME)

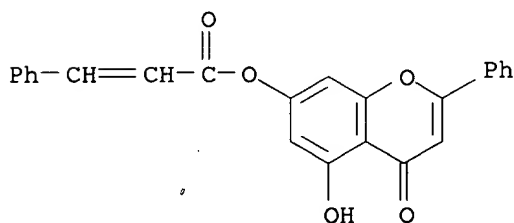
Absolute stereochemistry.

Double bond geometry as shown.



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 , ALL CITATIONS AVAILABLE IN THE RE FORMAT ,

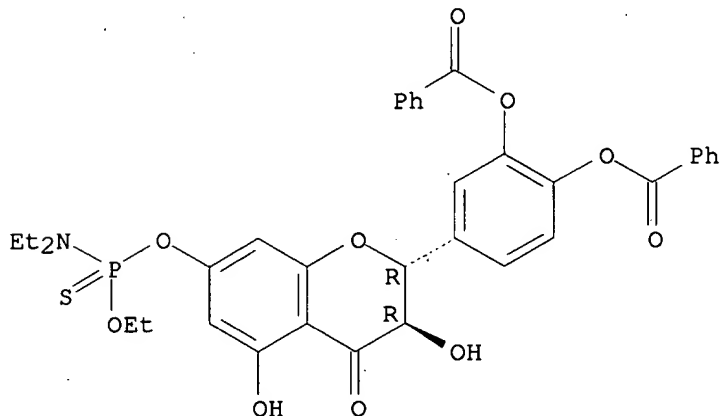
L14 ANSWER 18 OF 220 CAPLUS COPYRIGHT 2003 ACS  
AN 2001:682493 CAPLUS  
DN 136:303873  
TI Anti-diabetic effect of 7-cinnamoylchrysin  
AU Choi, Won Kyu; Shin, Joon Su; Kim, Kyoung Soon; Kim, Hwa-Jeong; Kim, Yang Bae; Kim, Bak-kwang  
CS College of Pharmacy, Seoul National University, Seoul, 151-742, S. Korea  
SO Soul Taehakkyo Yakhak Nonmunjip (2000), 25, 24-34  
CODEN: STYNDJ; ISSN: 0250-3336  
PB Seoul National University, College of Pharmacy  
DT Journal  
LA Korean  
AB The deriv. of 7-cinnamoylchrysin was synthesized by condensing cinnamic acid with chrysin in an org. solvent, and its structure was identified by NMR, MS, UV, IR etc. We also investigated the physicochem. properties, antidiabetic effect, and set up the quant. anal. method of the compd. The correlation coeff. of calibration curve on this compd. was approx. 0.9989 at the isosbestic point (355nm) by absorption spectrophotometry. Detection limit is 1.1 ng at S/N = 3 by using a RP column. 7-cinnamoylchrysin has hypoglycemic effect with 7.4 % inhibition rate.  
IT **228405-90-1P**  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(anti-diabetic effect of 7-cinnamoylchrysin)  
RN 228405-90-1 CAPLUS  
CN 2-Propenoic acid, 3-phenyl-, 5-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)





L14 ANSWER 19 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2001:629682 CAPLUS  
 DN 135:344296  
 TI First representatives of phosphorylated flavanones  
 AU Nifant'ev, E. E.; Kukhareva, T. S.; Koroteev, M. P.; Dzgoeva, Z. M.;  
 Kaziev, G. Z.; Vasyanina, L. K.  
 CS Department of Chemistry, Moscow State Pedagogical University, Moscow,  
 119021, Russia  
 SO Russian Journal of Bioorganic Chemistry (Translation of Bioorganicheskaya  
 Khimiya) (2001), 27(4), 278-279  
 CODEN: RJBCET; ISSN: 1068-1620  
 PB MAIK Nauka/Interperiodica  
 DT Journal  
 LA English  
 AB The natural flavanoid dihydroquercetin I (R = H) was for the first time  
 regioselectively phosphorylated using phosphoramidites. (Et<sub>2</sub>N)<sub>2</sub>P(OEt) and  
 I (R = H) were reacted in dioxane at 0-5.degree. to form I [R =  
 P(NEt<sub>2</sub>)(OEt)] which then underwent P-sulfuration by stirring with crystal  
 sulfur for 2 h at 50.degree. to form I [R = P(S)(NEt<sub>2</sub>)(OEt)] with 80%  
 yield for the two steps. The structure of the resulting phosphorothioates  
 was confirmed by <sup>1</sup>H, <sup>13</sup>C, and <sup>31</sup>P NMR spectroscopy.  
 IT **370888-02-1P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (regioselective prepn. of phosphorylated flavanones)  
 RN 370888-02-1 CAPLUS  
 CN Phosphoramidothioic acid, diethyl-, O-[(2R,3R)-2-[3,4-  
 bis(benzoyloxy)phenyl]-3,4-dihydro-3,5-dihydroxy-4-oxo-2H-1-benzopyran-7-  
 yl] O-ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 20 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 2001:546292 CAPLUS

DN 135:338728

TI Flavonoids as cycline-dependent kinase inhibitors: inhibition of cdc 25 phosphatase activity by flavonoids belonging to the quercetin and kaempferol series

AU Aligiannis, Nektarios; Mitaku, Sofia; Mitrocotsa, Dimitra; Leclerc, Sophie  
CS Department of Pharmacy, Division of Pharmacognosy, University of Athens, Athens, 15771, Greece

SO Planta Medica (2001), 67(5), 468-470

CODEN: PLMEAA; ISSN: 0032-0943

PB Georg Thieme Verlag

DT Journal

LA English

AB In an effort to detect potential inhibitors of cdc25 phosphatase, nineteen flavonoids belonging to the quercetin and kaempferol series have been evaluated, using a colorimetric assay of recombinant human cdc25A tyrosine phosphatase as a cell cycle-specific target. Compds. bearing two benzyl or Me groups in positions 7 and 4' and acetyl on the hydroxy groups of the sugar moiety showed the maximal activity.

IT 370889-39-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)

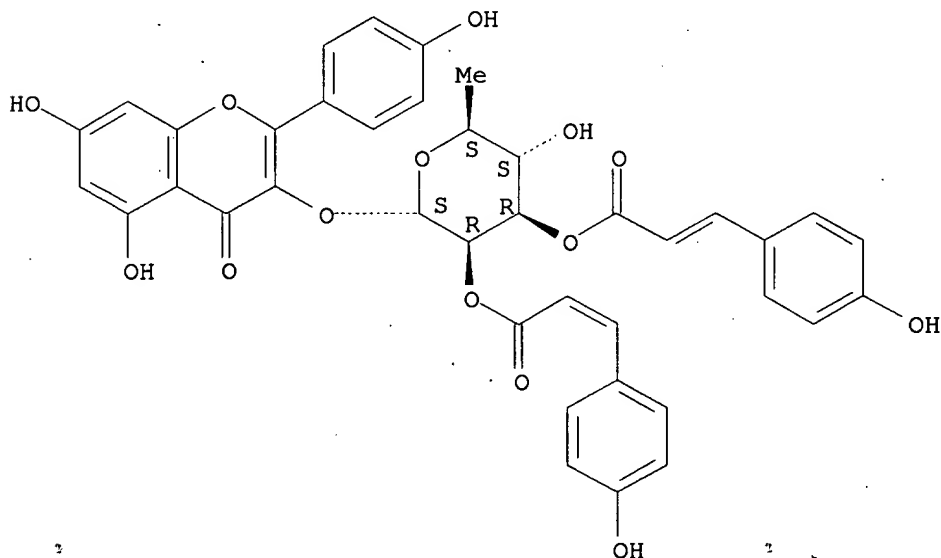
(flavonoids as cycline-dependent kinase inhibitors: inhibition of cdc 25 phosphatase by quercetin and kaempferol flavonoids)

RN 370889-39-7 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-2,3-bis-O-[3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

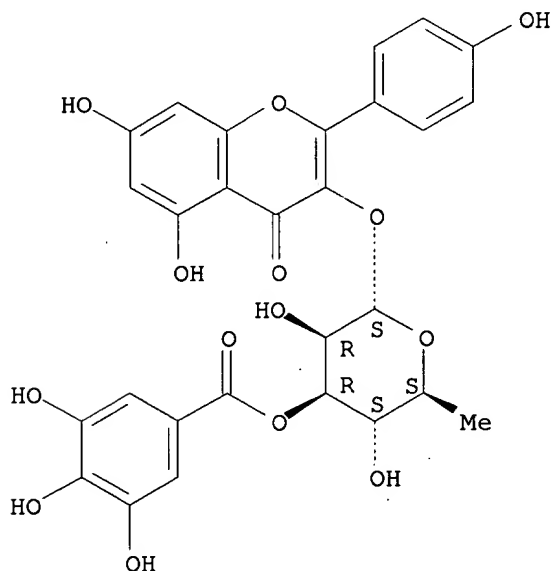
Double bond geometry unknown.



RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 21 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2001:526622 CAPLUS  
 DN 135:376601  
 TI Two new flavonol glycosides from leaves of *Koelreuteria paniculata*  
 AU Mahmoud, I.; Moharram, F. A.; Marzouk, M. S.; Soliman, H. S. M.; El-Dib, R. A.  
 CS Department of Pharmacognosy, Faculty of Pharmacy, Helwan University, Cairo, Egypt  
 SO Pharmazie (2001), 56(7), 580-582  
 CODEN: PHARAT; ISSN: 0031-7144  
 PB Govi-Verlag Pharmazeutischer Verlag  
 DT Journal  
 LA English  
 AB Two new flavonol glycosides were isolated from dried leaves of *Koelreuteria paniculata* Laxm. (Sapindaceae) and characterized as 6,8-dihydroxy-afzelin and afzelin 3"-O-gallate, based on chem. and spectral evidences, in addn. to nine known polyphenolic metabolites, including eight isolated for the first time from this species.  
 IT **374087-85-1P**, Afzelin 3"-O-gallate  
 RL: PRP (Properties); PUR (Purification or recovery); PREP (Preparation) (two new flavonol glycosides from leaves of *Koelreuteria paniculata*)  
 RN 374087-85-1 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-3-O-(3,4,5-trihydroxybenzoyl)-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 22 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 2001:489917 CAPLUS

DN 135:92483

TI Preparation of flavanone derivatives for preventing or treating blood lipid level-related diseases

IN Bok, Song-Hae; Jeong, Tae-Sook; Lee, Sang-Ku; Kim, Ju-Ryong; Moon, Surk-Sik; Choi, Myung-Sook; Hyun, Byung-Hwa; Lee, Chul-hH; Choi, Yang-kKu

PA Korea Research Institute of Bioscience and Biotechnology, S. Korea

SO U.S. Pat. Appl. Publ., 17 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2001006978	A1	20010705	US 2001-768740	20010124
	US 6455577	B2	20020924		
PRAI	KR 1999-87185	A	19991230		

OS MARPAT 135:92483

AB Flavanone derivs., such as I [R1 = R5, R6CO; R2 = H, R6CO; R3 = H, Me, R5, R6CO; R4 = H, OH, OR5, OCOR6; R5 = C10-18 alkyl, C10-18 alkenyl; R6 = C10-18 alkenyl, aryl group optionally having one or more substituents selected from alkyl, OH, Cl or NO2], were prepd. for treating or preventing an elevated blood lipid level-related disease and inhibiting the activities of acyl-CoA:cholesterol-O-acyltransferase (ACAT) and 3-hydroxy-3-methylglutaryl CoA (HMG-CoA) reductase. Thus, I [R1 = Me(CH2)15; R2-R4 = H] was prepd. by the reaction of hexadecyl bromide with naringenin. The prepd. flavanone derivs. were tested for preventing or treating blood lipid level-related diseases and pharmaceutical compns. were also claimed.

IT 125130-59-8P 348153-71-9P 348154-43-8P

348155-12-4P 348155-14-6P 348155-48-6P

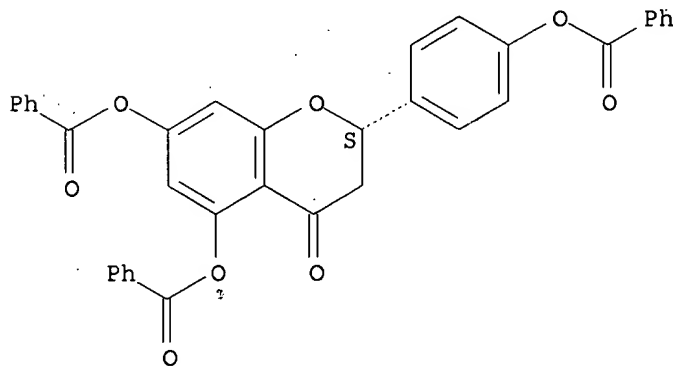
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of flavanone derivs. for preventing or treating blood lipid level-related diseases)

RN 125130-59-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-bis(benzoyloxy)-2-[4-(benzoyloxy)phenyl]-2,3-dihydro-, (2S)- (9CI) (CA INDEX NAME)

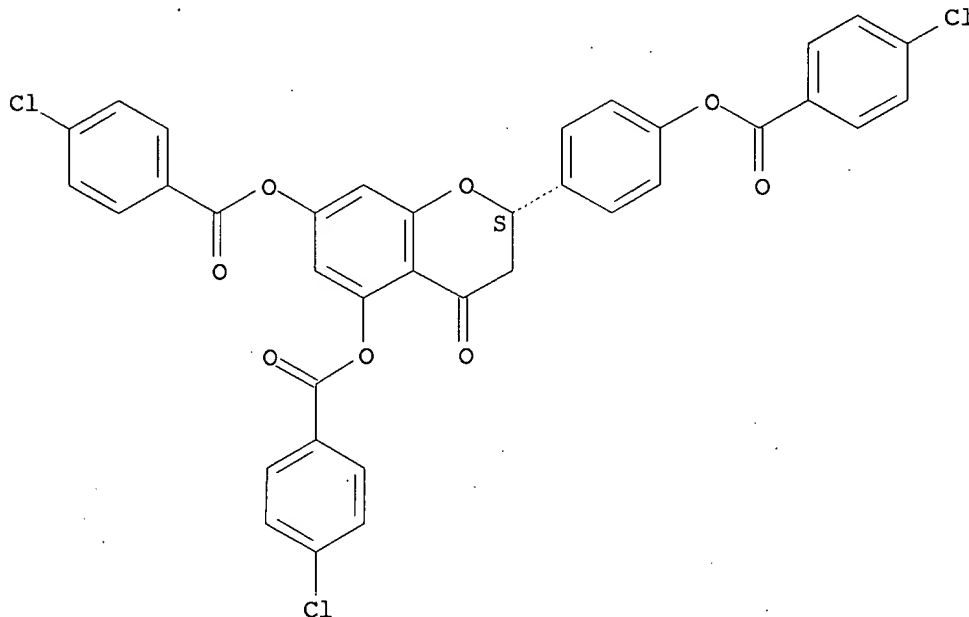
Absolute stereochemistry.



RN 348153-71-9 CAPLUS

CN Benzoic acid, 4-chloro-, (2S)-2-[4-[(4-chlorobenzoyl)oxy]phenyl]-3,4-dihydro-4-oxo-2H-1-benzopyran-5,7-diyl ester (9CI) (CA INDEX NAME)

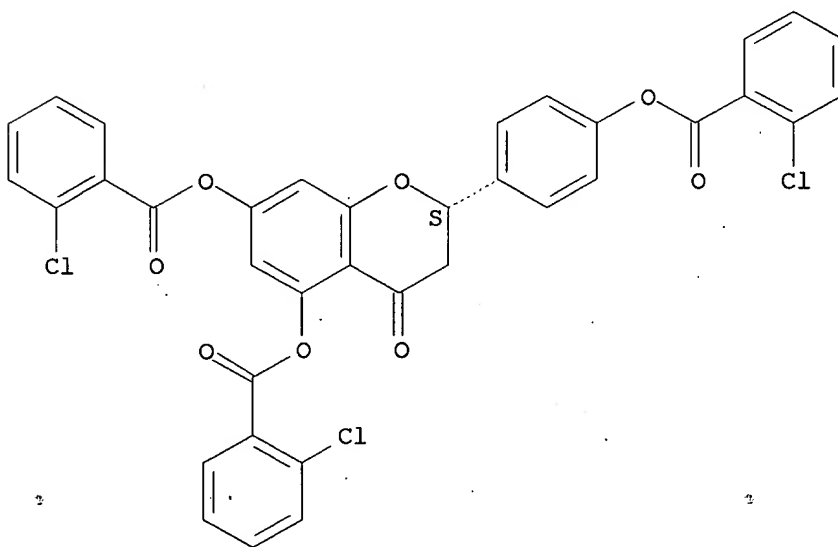
Absolute stereochemistry.



RN 348154-43-8 CAPLUS

CN Benzoic acid, 2-chloro-, (2S)-2-[4-[(2-chlorobenzoyl)oxy]phenyl]-3,4-dihydro-4-oxo-2H-1-benzopyran-5,7-diyl ester (9CI) (CA INDEX NAME)

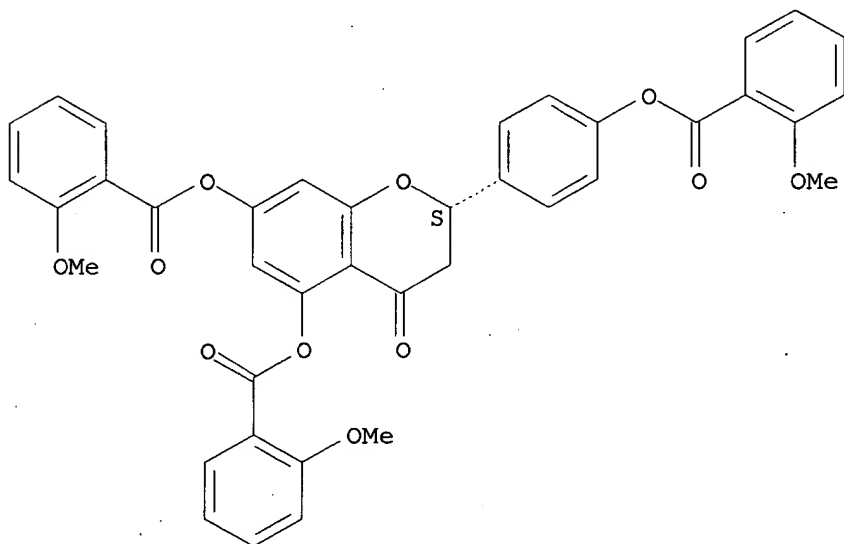
Absolute stereochemistry.



RN 348155-12-4 CAPLUS

CN Benzoic acid, 2-methoxy-, (2S)-3,4-dihydro-2-[4-[(2-methoxybenzoyl)oxy]phenyl]-4-oxo-2H-1-benzopyran-5,7-diyl ester (9CI) (CA INDEX NAME)

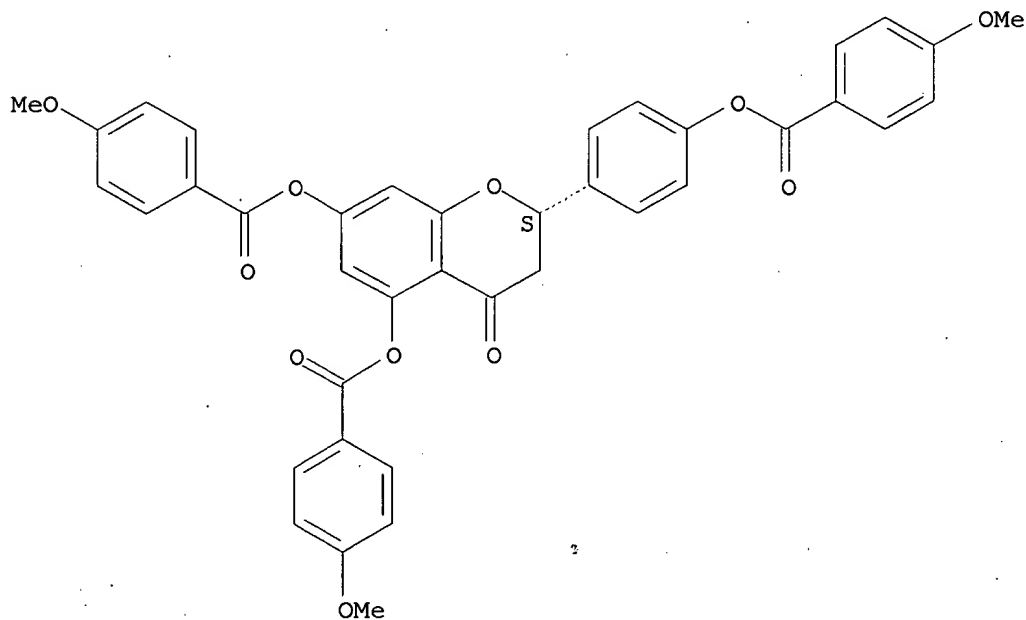
Absolute stereochemistry.



RN 348155-14-6 CAPLUS

CN Benzoic acid, 4-methoxy-, (2S)-3,4-dihydro-2-[4-[(4-methoxybenzoyl)oxy]phenyl]-4-oxo-2H-1-benzopyran-5,7-diyl ester (9CI) (CA INDEX NAME)

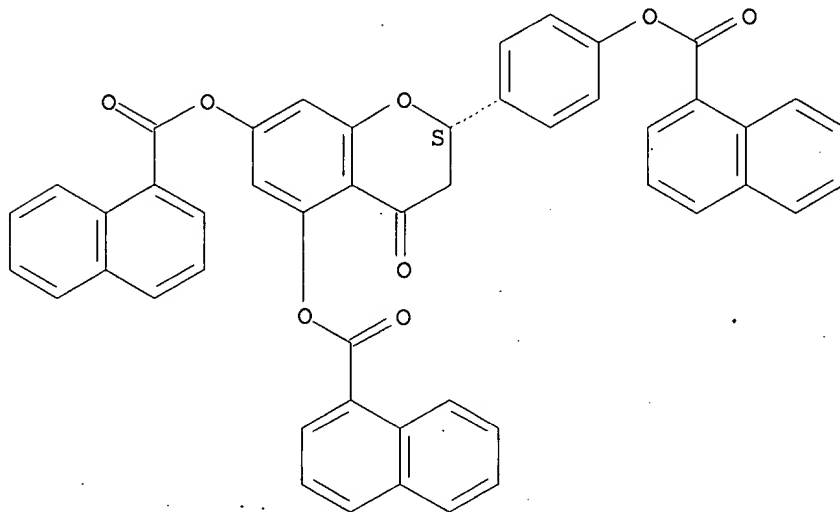
Absolute stereochemistry.



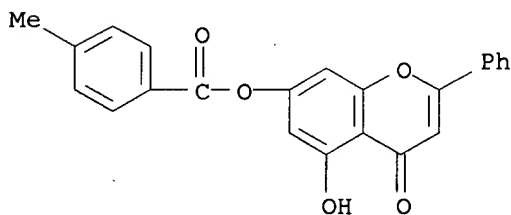
RN 348155-48-6 CAPLUS

CN 1-Naphthalenecarboxylic acid, (2S)-3,4-dihydro-2-[4-[(1-naphthalenylcarbonyl)oxy]phenyl]-4-oxo-2H-1-benzopyran-5,7-diyl ester  
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

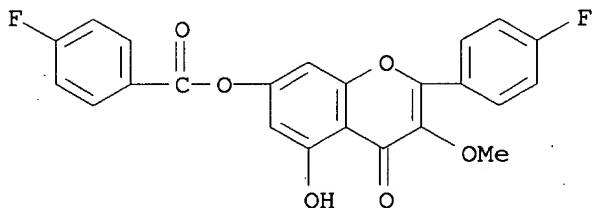


L14 ANSWER 23 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2001:35497 CAPLUS  
 DN 135:102324  
 TI Properties and anti-diabetic effect of 7-methylbenzoyl chrysin  
 AU Yang, Sung Sim; Kim, Kyoung Soon; Shin, Joon Su; Jeong, Gi Hwa; Kim, Bak-kwang  
 CS College of Pharmacy, Seoul National University, Seoul, 151-742, S. Korea  
 SO Soul Taehakkyo Yakhak Nonmunjip (1999), 24, 6-15  
 CODEN: STYNDJ; ISSN: 0250-3336  
 PB Seoul National University, College of Pharmacy  
 DT Journal  
 LA Korean  
 AB 7-Methylbenzoyl chrysin was synthesized by condensing toluic acid with chrysin in org. solvent, and its structure was identified by NMR, MS, UV, IR etc. We also investigated the physico-chem. properties, anti-diabetic effect, and set up the quant. anal. method of this compd. The correlation coeff. of calibration curve measured at the isosbestic point (388nm) on this compd. was approx. 0.9996 by absorption spectrophotometry. Detection limit is 0.74ng at S/N = 3 by using a RP Column. 7-Methylbenzoyl chrysin has hypoglycemic effect of 23% in inhibition rate.  
 IT **228405-92-3P**  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (properties and anti-diabetic effect of 7-methylbenzoyl chrysin)  
 RN 228405-92-3 CAPLUS  
 CN Benzoic acid, 4-methyl-, 5-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)





L14 ANSWER 24 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2000:872665 CAPLUS  
 DN 134:207682  
 TI B-ring substituted 5,7-dihydroxyflavonols with high-affinity binding to P-glycoprotein responsible for cell multidrug resistance  
 AU Boumendjel, A.; Bois, F.; Beney, C.; Mariotte, A.-M.; Conseil, G.; Di Pietro, A.  
 CS UFR de Pharmacie de Grenoble, Departement de Pharmacochimie Moleculaire UMR-CNRS 5063, La Tronche, 38706, Fr.  
 SO Bioorganic & Medicinal Chemistry Letters (2000), Volume Date 2001, 11(1), 75-77  
 CODEN: BMCLE8; ISSN: 0960-894X  
 PB Elsevier Science Ltd.  
 DT Journal  
 LA English  
 OS CASREACT 134:207682  
 AB Starting from the interaction of galangin (3,5,7-trihydroxyflavone) with a cytosolic nucleotide-binding domain of P-glycoprotein, a series of flavonol derivs. was synthesized and tested for their binding affinity towards the same target. The 5,7-dihydroxy-4'-iodoflavonol and 5,7-dihydroxy-4'-n-octylflavonol derivs. displayed much higher binding affinities, with resp. increases of 6- and 93-fold as compared to galangin.  
 IT **328548-30-7P**  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. of B-ring substituted 5,7-dihydroxyflavonols and their high-affinity binding to P-glycoprotein)  
 RN 328548-30-7 CAPLUS  
 CN Benzoic acid, 4-fluoro-, 2-(4-fluorophenyl)-5-hydroxy-3-methoxy-4-oxo-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



RE.CNT 8      THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 25 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 2000:872653 CAPLUS

DN 134:202557

TI Beneficial effects of different flavonoids; on functional recovery after ischemia and reperfusion in isolated rat heart

AU Lebeau, J.; Nevriere, R.; Cotellet, N.

CS USTL, UPRESA 8009, Laboratoire de Chimie Organique et Macromoleculaire, Equipe Polyphenols, Villeneuve d'Ascq, 59655, Fr.

SO Bioorganic &amp; Medicinal Chemistry Letters (2000), Volume Date 2001, 11(1), 23-27

CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier Science Ltd.

DT Journal

LA English

AB Three newly synthesized lipid peroxidn. inhibitors, a flavone, a chalcone and an arylidene, were evaluated for their effects on myocardial functional recovery during reperfusion after 30 min global ischemia in isolated rat hearts. The flavonoid compds. reduced ischemia/reperfusion-induced cardiac dysfunction.

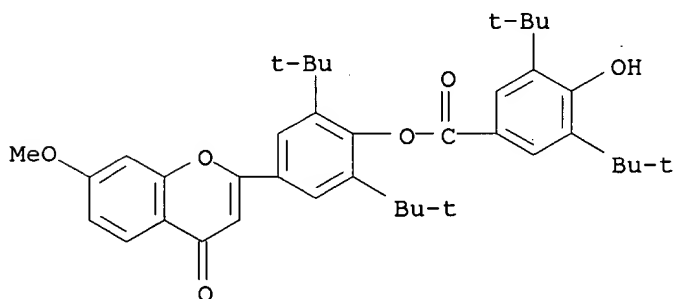
IT 318989-70-7P 318989-71-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(flavonoids with cardioprotective action against myocardial ischemia/reperfusion injury)

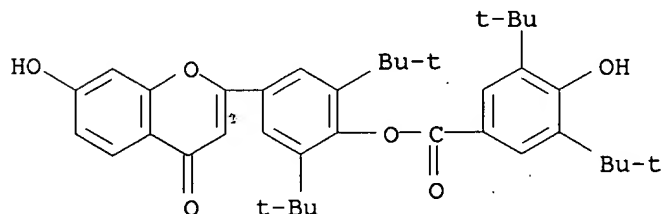
RN 318989-70-7 CAPLUS

CN Benzoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, 2,6-bis(1,1-dimethylethyl)-4-(7-methoxy-4-oxo-4H-1-benzopyran-2-yl)phenyl ester (9CI)  
(CA INDEX NAME)



RN 318989-71-8 CAPLUS

CN Benzoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, 2,6-bis(1,1-dimethylethyl)-4-(7-hydroxy-4-oxo-4H-1-benzopyran-2-yl)phenyl ester (9CI)  
(CA INDEX NAME)



L14 ANSWER 26 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 2000:840565 CAPLUS

DN 134:95473

TI Antioxidant properties of di-tert-butylhydroxylated flavonoids

AU Lebeau, Jonathan; Furman, Christophe; Bernier, Jean-Luc; Duriez, Patrick; Teissier, Elisabeth; Cotellet, Nicole

CS Laboratoire de Chimie Organique et Macromoléculaire, UPRESA 8009, Villeneuve d'Ascq, 59655, Fr.

SO Free Radical Biology &amp; Medicine (2000), 29(9), 900-912

CODEN: FRBMEH; ISSN: 0891-5849

PB Elsevier Science Inc.

DT Journal

LA English

AB Epidemiol. evidence suggests an inverse relationship between dietary intake of flavonoids and cardiovascular risk. The biol. activities of flavonoids are related to their antioxidative effects, but they also can be mutagenic, due to the prooxidant activity of the catechol pattern. To prevent these problems, new flavonoids where 1 or 2 di-tert-butylhydroxyphenyl (DBHP) groups replaced catechol moiety at position 2 of the benzopyran heterocycle were synthesized. Two DBHP moieties can also be arranged in an arylidene structure or one DBHP fixed on a chalcone structure. Position 7 on the flavone and arylidene or position 4 on the chalcone was substituted by H, OCH<sub>3</sub>, or OH. New structures were compared with quercetin and BHT in an LDL oxidn. system induced by Cu(II) ions. Arylidenes and chalcones had the best activities (ED<sub>50</sub> = 0.86 and 0.21) compared with vitamin E, BHT, and quercetin (ED<sub>50</sub> = 10.0, 7.4, and 2.3 .mu.M). Activity towards stable free radical 1,1-diphenyl-2-picrylhydrazyl (DPPH) was measured by log Z and ECR<sub>50</sub> parameters. Synthesized flavones proved to be poor DPPH radical scavengers, the activity increasing with the no. of DBHP units. In contrast, arylidenes and chalcones were stronger DPPH radical scavengers (log Z > 3, 0.3 < ECR<sub>50</sub> < 2.12) than BHT (log Z = 0.75, ECR<sub>50</sub> = 12.56) or quercetin (log Z = 2.76, ECR<sub>50</sub> = 0.43). Unlike quercetin, synthesized compds. neither chelated nor reduced copper, proving that these new flavonoids had no prooxidant activity in vitro.

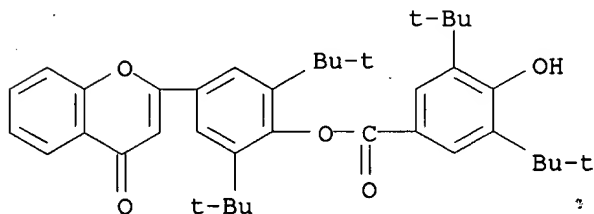
IT 318989-69-4 318989-70-7 318989-71-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antioxidant properties of)

RN 318989-69-4 CAPLUS

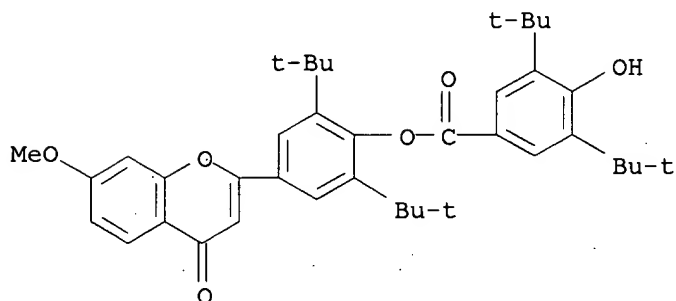
CN Benzoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, 2,6-bis(1,1-dimethylethyl)-4-(4-oxo-4H-1-benzopyran-2-yl)phenyl ester (9CI) (CA INDEX NAME)



RN 318989-70-7 CAPLUS

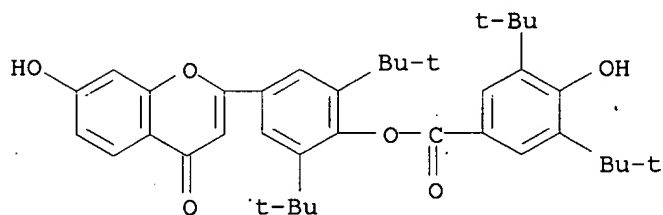
CN Benzoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, 2,6-bis(1,1-

dimethylethyl)-4-(7-methoxy-4-oxo-4H-1-benzopyran-2-yl)phenyl ester (9CI)  
(CA INDEX NAME)



RN 318989-71-8 CAPLUS

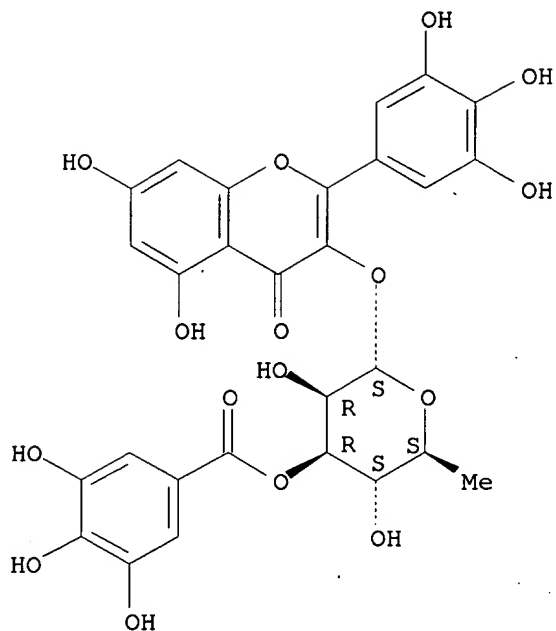
CN Benzoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, 2,6-bis(1,1-dimethylethyl)-4-(7-hydroxy-4-oxo-4H-1-benzopyran-2-yl)phenyl ester (9CI)  
(CA INDEX NAME)



RE.CNT 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 27 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2000:811999 CAPLUS  
 DN 134:97898  
 TI Gallotannins and related polyphenols from Pistacia weinmannifolia  
 AU Hou, Ai-Jun; Peng, Li-Yan; Liu, Yan-Ze; Lin, Zhong-Wen; Sun, Han-Dong  
 CS Laboratory of Phytochemistry, Kunming Institute of Botany, Academia  
 Sinica, Kunming, Peop. Rep. China  
 SO Planta Medica (2000), 66(7), 624-626  
 CODEN: PLMEAA; ISSN: 0032-0943  
 PB Georg Thieme Verlag  
 DT Journal  
 LA English  
 AB Two new gallotannins, pistafolins A and B, were isolated from the leaf  
 ext. of Pistacia weinmannifolia. Their structures were detd. by spectral  
 methods. Four known gallotannins, seven known flavonoid glycosides, along  
 with 1-O-.beta.-D-(6'-O-galloyl)-glucopyranosyl-3-methoxy-5-  
 hydroxybenzene, gallic acid, Me gallate, (+)-catechin, and  
 (+)-gallo catechin, were also isolated. Some of these compds. were tested  
 for their cytotoxicity toward K562 cells, and two small mol. phenolic  
 compds., gallic acid and (+)-gallo catechin, showed significant inhibitory  
 effects with IC50 values less than 5 .mu.g/mL.  
 IT **143202-36-2P**, Myricetin 3-O-(3"-O-galloyl)-.alpha.-L-  
 rhamnopyranoside  
 RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or  
 effector, except adverse); BOC (Biological occurrence); BSU (Biological  
 study, unclassified); PRP (Properties); PUR (Purification or recovery);  
 BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)  
 (isolation, structure and cytotoxicity of gallotannins and related  
 polyphenols from Pistacia weinmannifolia)  
 RN 143202-36-2 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-3-O-(3,4,5-trihydroxybenzoyl)-.alpha.-L-  
 mannopyranosyl]oxy]-5,7-dihydroxy-2-(3,4,5-trihydroxyphenyl)- (9CI) (CA  
 INDEX NAME)

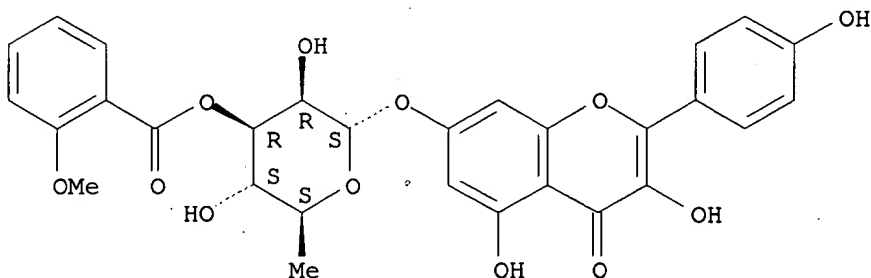
Absolute stereochemistry.



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 28 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2000:788188 CAPLUS  
 DN 134:68778  
 TI Medicinal foodstuffs. XIX. Absolute stereostructures of canavalioid, a new ent-kaurane-type diterpene glycoside, and gladiatosides A1, A2, A3, B1, B2, B3, C1, and C2, new acylated flavonol glycosides, from sword bean, the seeds of *Canavalia gladiata*  
 AU Murakami, Toshiyuki; Kohno, Kentarou; Kishi, Akinobu; Matsuda, Hisashi; Yoshikawa, Masayuki  
 CS Kyoto Pharmaceutical University, Kyoto, 607-8414, Japan  
 SO Chemical & Pharmaceutical Bulletin (2000), 48(11), 1673-1680  
 CODEN: CPBTAL; ISSN: 0009-2363  
 PB Pharmaceutical Society of Japan  
 DT Journal  
 LA English  
 AB A new ent-kaurane-type glycoside, canavalioid, and eight new acylated flavonol glycosides, gladiatosides A1, A2, A3, B1, B2, B3, C1, and C2, were isolated from the seed of *Canavalia gladiata* together with robinin, kaempferol 3-O-.beta.-D-galactopyranosyl-7-O-.alpha.-L-rhamnopyranoside, and kaikasaponin III. The abs. stereostructures of canavalioid and gladiatosides A1, A2, A3, B1, B2, B3, C1, and C2 were elucidated on the basis of chem. and physicochem. evidence.  
 IT **315700-58-4P**  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)  
 (abs. stereostructures new ent-kaurane-type diterpene glycoside and acylated flavonol glycosides from *Canavalia gladiata* seeds)  
 RN 315700-58-4 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 7-[[6-deoxy-3-O-(2-methoxybenzoyl)-.alpha.-L-mannopyranosyl]oxy]-3,5-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

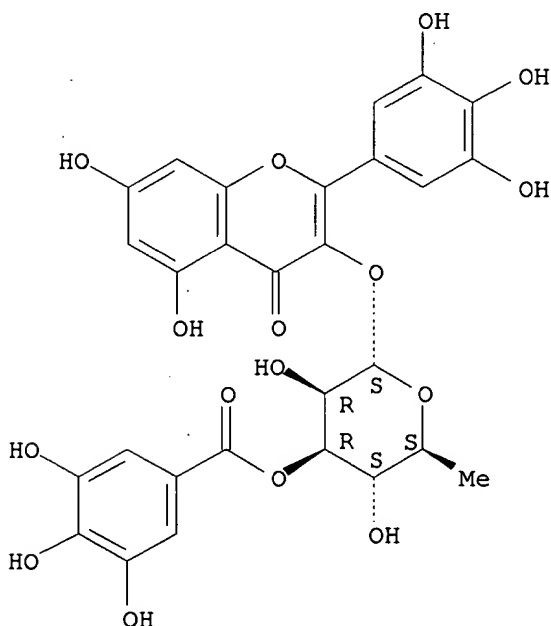
Absolute stereochemistry. Rotation (-).



RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 29 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2000:379080 CAPLUS  
 DN 133:117441  
 TI Flavonoids and phenolics from *Limonium sinense*  
 AU Lin, Lie-Chwen; Chou, Cheng-Jen  
 CS National Research Institute of Chinese Medicine, Taipei, Taiwan  
 SO *Planta Medica* (2000), 66(4), 382-383  
 CODEN: PLMEAA; ISSN: 0032-0943  
 PB Georg Thieme Verlag  
 DT Journal  
 LA English  
 AB From the aerial part of *Limonium sinense* (Girard) Ktze, a new flavonol glycoside, myricetin 3-O-(2''-O-p-hydroxybenzoyl)-.alpha.-rhamnopyranoside (I) has been isolated together with known flavonols, flavonol glycosides, flavonol glycoside gallates, flavones, flavanones, flavan-3-ols and gallic acid. The structural detns. of these compds. were based on spectral analyses.  
 IT **143202-36-2**, Myricetin 3-O-(3''-O-galloyl)-.alpha.-rhamnopyranoside **284684-33-9** **284684-34-0**  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)  
 (from *Limonium sinense*)  
 RN 143202-36-2 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-3-O-(3,4,5-trihydroxybenzoyl)-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(3,4,5-trihydroxyphenyl)- (9CI) (CA INDEX NAME)

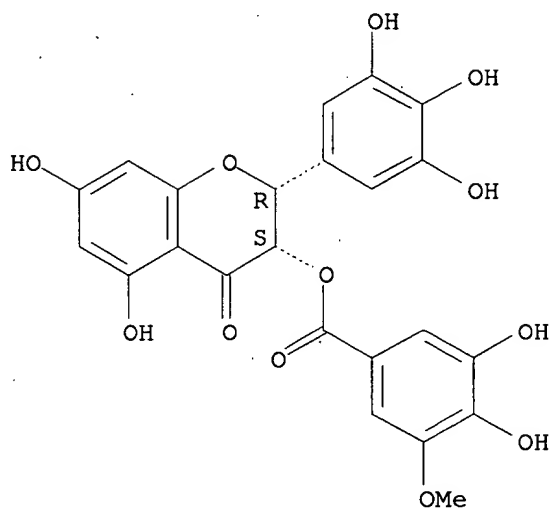
Absolute stereochemistry.



RN 284684-33-9 CAPLUS,  
 CN Benzoic acid, 3,4-dihydroxy-5-methoxy-, (2R,3S)-3,4-dihydro-5,7-dihydroxy-4-oxo-2-(3,4,5-trihydroxyphenyl)-2H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



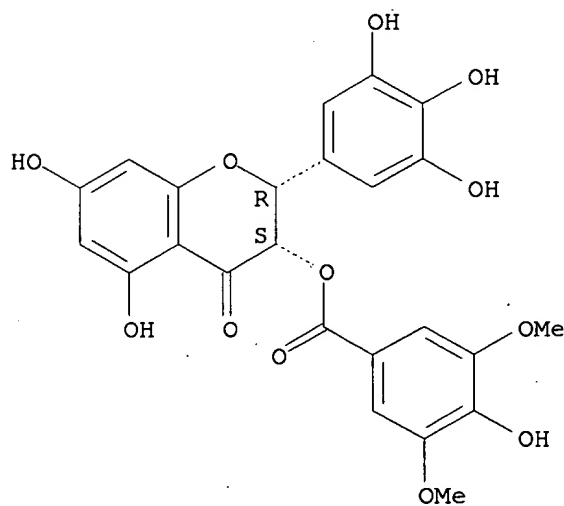
Absolute stereochemistry.



RN 284684-34-0 CAPLUS

CN Benzoic acid, 4-hydroxy-3,5-dimethoxy-, (2R,3S)-3,4-dihydro-5,7-dihydroxy-4-oxo-2-(3,4,5-trihydroxyphenyl)-2H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 30 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 2000:379078 CAPLUS

DN 133:129549

TI Evaluation of the antiviral activity of kaempferol and its glycosides against human cytomegalovirus

AU Mitrocotsa, Dimitra; Mitaku, Sofia; Axarlis, Stavros; Harvala, Catherine; Malamas, Michalis

CS Division of Pharmacognosy, School of Pharmacy, University of Athens, Athens, Greece

SO Planta Medica (2000), 66(4), 377-379

CODEN: PLMEAA; ISSN: 0032-0943

PB Georg Thieme Verlag

DT Journal

LA English

AB The antiviral activity of seven flavonoids, belonging to the kaempferol series, was evaluated against human cytomegalovirus (HCMV) by a rapid method of detection of the immediate-early (IE) antigen, induced by the virus in infected cells. Flavonoids bearing acyl substituents were found to be the most active compds.

IT 133740-25-7 286433-00-9

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

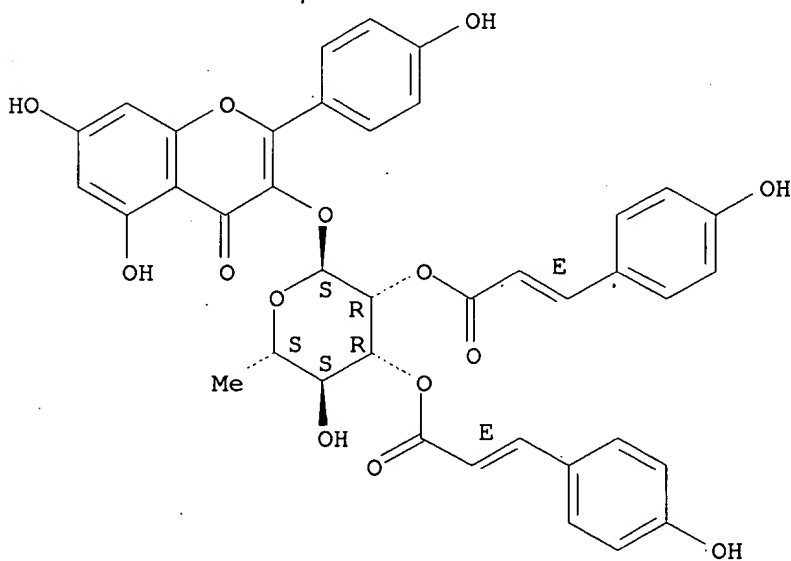
(antiviral activity of kaempferol and its glycosides against human cytomegalovirus)

RN 133740-25-7 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[[6-deoxy-2,3-bis-O-[(2E)-3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



RN 286433-00-9 CAPLUS

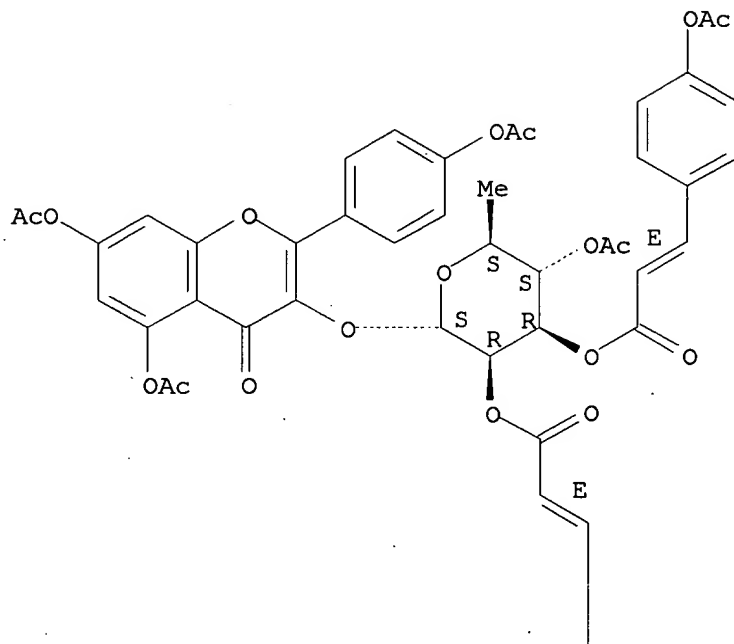
CN 4H-1-Benzopyran-4-one, 3-[[[4-O-acetyl-2,3-bis-O-[(2E)-3-[4-(acetyloxy)phenyl]-1-oxo-2-propenyl]-6-deoxy-.alpha.-L-mannopyranosyl]oxy]-

5,7-bis(acetyloxy)-2-[4-(acetyloxy)phenyl]- (9CI) (CA INDEX NAME)

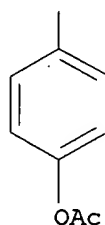
Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A



PAGE 2-A



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 31 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 2000:247838 CAPLUS

DN 133:14638

TI Three New Flavonol Galloylglycosides from Leaves of *Acacia confusa*

AU Lee, Tzong-Huei; Qiu, Feng; Waller, George R.; Chou, Chang-Hung

CS Institute of Botany, Academia Sinica, Taipei, 11529, Taiwan

SO Journal of Natural Products (2000), 63(5), 710-712

CODEN: JNPRDF; ISSN: 0163-3864

PB American Chemical Society

DT Journal

LA English

AB Myricetin 3-O-(2''-O-galloyl)-.alpha.-rhamnopyranoside 7-Me ether, myricetin 3-O-(3''-O-galloyl)-.alpha.-rhamnopyranoside 7-Me ether, and myricetin 3-O-(2'',3''-di-O-galloyl)-.alpha.-rhamnopyranoside (3), three new flavonol galloylglycosides, were isolated from leaves of *Acacia confusa* sampled from Chaoushi in the north of Taiwan. Their structures were established by anal. of spectroscopic data, and the compds. were evaluated for anti-hatch activity against brine shrimp. Four known flavonoids were isolated also.

IT 143202-36-2

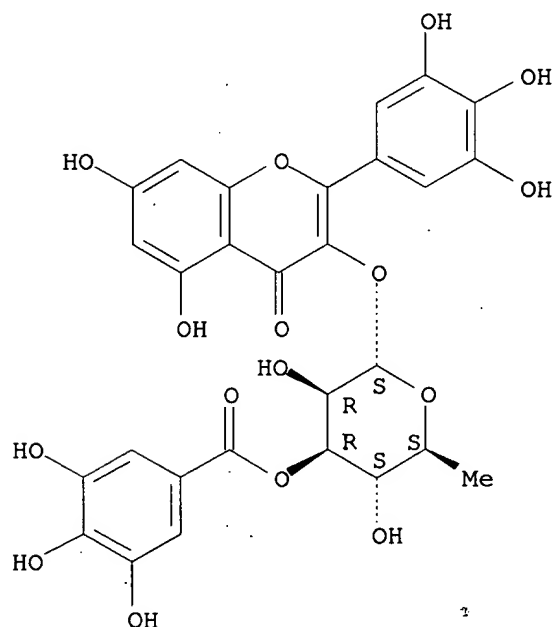
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)

(isolation from *Acacia confusa* and biol. activity toward brine shrimp of)

RN 143202-36-2 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-3-O-(3,4,5-trihydroxybenzoyl)-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(3,4,5-trihydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 272128-14-0P

RL: BAC (Biological activity or effector, except adverse); BOC (Biological

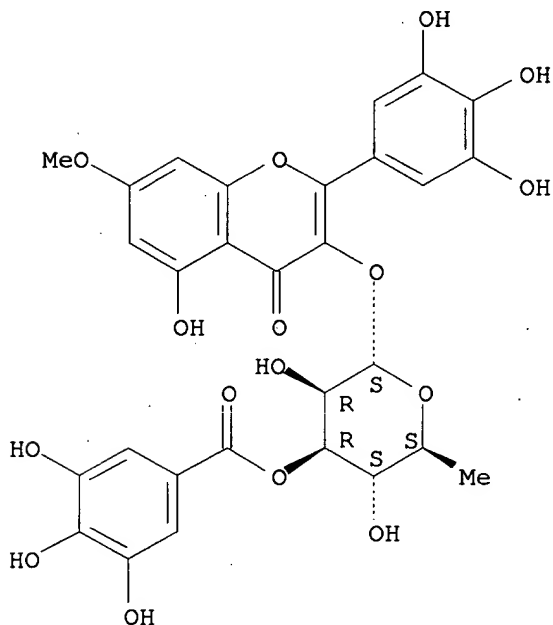
occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(isolation from *Acacia confusa* and structure and biol. activity toward brine shrimp of)

RN 272128-14-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-3-O-(3,4,5-trihydroxybenzoyl)-.alpha.-L-mannopyranosyl]oxy]-5-hydroxy-7-methoxy-2-(3,4,5-trihydroxyphenyl)- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



IT 272128-15-1P

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

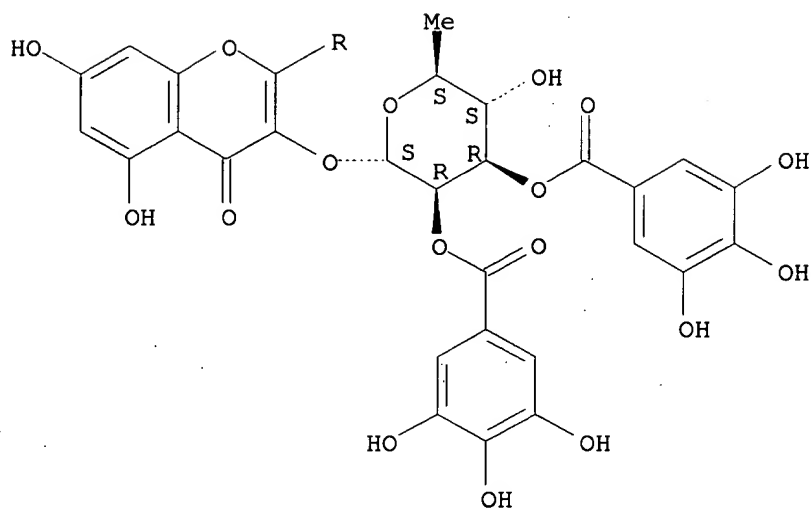
(isolation from *Acacia confusa* and structure of)

RN 272128-15-1 CAPLUS

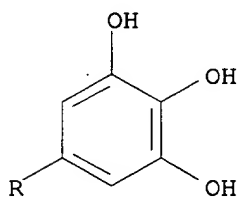
CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-2,3-bis-O-(3,4,5-trihydroxybenzoyl)-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(3,4,5-trihydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



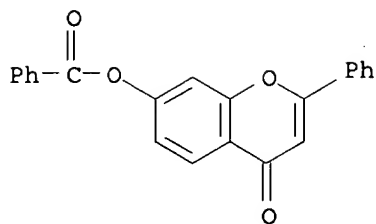
PAGE 2-A



RE.CNT 13

THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 32 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2000:202982 CAPLUS  
 DN 133:1933  
 TI Bovine adrenal 3.beta.-hydroxysteroid dehydrogenase (E.C. 1.1.1.145)/5-ene-4-ene isomerase (E.C. 5.3.3.1): characterization and its inhibition by isoflavones  
 AU Wong, C. K.; Keung, W. M.  
 CS Department of Chemical Pathology, Prince of Wales Hospital, Shatin, The Chinese University of Hong Kong, Hong Kong, Peop. Rep. China  
 SO Journal of Steroid Biochemistry and Molecular Biology (2000), Volume Date 1999, 71(5-6), 191-202  
 CODEN: JSBBEZ; ISSN: 0960-0760  
 PB Elsevier Science Ltd.  
 DT Journal  
 LA English  
 AB The isoflavones daidzein, genistein, biochanin A and formononetin inhibit potently and preferentially the .gamma.-isoenzymes of mammalian alc. dehydrogenase (.gamma..gamma.-ADH), the only ADH isoenzyme that catalyzes the oxidn. of 3.beta.-hydroxysteroids. Based on these results, we proposed that these isoflavones might also act on other enzymes involved in 3.beta.-hydroxysteroid metab. Recently, we showed that they indeed are potent inhibitors of a bacterial .beta.-hydroxysteroid dehydrogenase (.beta.-HSD). To extend this finding to the mammalian systems, we hereby purified, characterized and studied the effects of isoflavones and structurally related compds. on, a bovine adrenal 3.beta.-hydroxysteroid dehydrogenase (3.beta.-HSD). This enzyme catalyzes the oxidn. of 3.beta.-hydroxysteroids but not 3.alpha.-, 11.beta.- or 17.beta.-hydroxysteroids. The same enzyme also catalyzes 5-ene-4-ene isomerization, converting 5-pregnen-3,20-dione to progesterone. The Km values of its dehydrogenase activity detd. for a list of 3.beta.-hydroxysteroid substrates are similar (1 to 2 .mu.M) and that of its isomerase activity, detd. with 5-pregnen-3,20-dione as a substrate, is 10 .mu.M. The kcat value detd. for its isomerase activity (18.2 min<sup>-1</sup>) is also higher than that for its dehydrogenase activity (1.4-2.4 min<sup>-1</sup>). A survey of more than 30 isoflavones and structurally related compds. revealed that daidzein, genistein, biochanin A and formononetin inhibit both the dehydrogenase and isomerase activity of this enzyme. Inhibition is potent and concn. dependent. IC50 values detd. for these compds. range from 0.4 to 11 .mu.M, within the plasma and urine concn. ranges of daidzein and genistein of individuals on vegetarian diet or semi-vegetarian diet. These results suggest that dietary isoflavones may exert their biol. effects by inhibiting the action of 3.beta.-HSD, a key enzyme of neurosteroid and/or steroid hormone biosynthesis.  
 IT **39103-37-2**  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
 (purifn. and characterization of bovine adrenal 3.beta.-hydroxysteroid dehydrogenase (E.C. 1.1.1.145)/steroid .DELTA.5-.DELTA.4-ene isomerase (E.C. 5.3.3.1) and its inhibition by isoflavones)  
 RN 39103-37-2 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 7-(benzoyloxy)-2-phenyl- (9CI) (CA INDEX NAME)

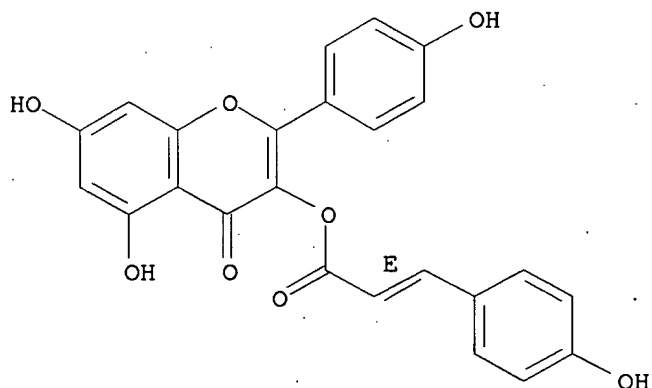


RE.CNT 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT



L14 ANSWER 33 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2000:193876 CAPLUS  
 DN 132:345475  
 TI Constituents of the flowers of *Persea gratissima*  
 AU Kruthiventi, Anil Kumar; Krishnaswamy, N. R.  
 CS Department of Chemistry, Sri Satya Sai Institute of Higher Learning, 515  
 134, India  
 SO Fitoterapia (2000), 71(1), 94-96  
 CODEN: FTRPAE; ISSN: 0367-326X  
 PB Elsevier Science B.V.  
 DT Journal  
 LA English  
 AB The flowers of *Persea gratissima* yielded an acylated flavonol,  
 3-O-trans-p-coumaroylkaempferol (I), in addn. to known flavonol  
 glycosides, quercetin 3-O-rhamnoside and isorhamnetin 3-O-glucoside.  
 IT **270079-36-2P**, 3-O-(trans-p-Coumaroyl)kaempferol  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP  
 (Properties); PUR (Purification or recovery); BIOL (Biological study);  
 OCCU (Occurrence); PREP (Preparation)  
 (isolation and mol. structure of 3-O-trans-p-coumaroylkaempferol and  
 other flavonoid glycoside constituents of the flowers of *Persea*  
*gratissima*)  
 RN 270079-36-2 CAPLUS  
 CN 2-Propenoic acid, 3-(4-hydroxyphenyl)-, 5,7-dihydroxy-2-(4-hydroxyphenyl)-  
 4-oxo-4H-1-benzopyran-3-yl ester, (2E)- (9CI) (CA INDEX NAME)

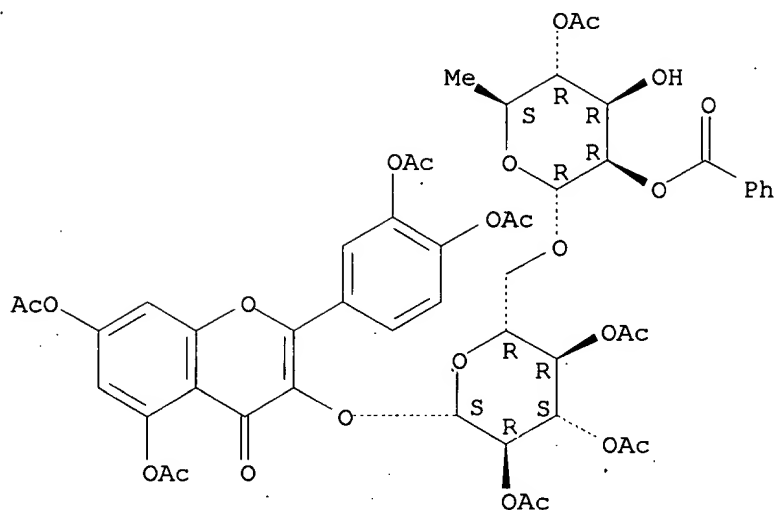
Double bond geometry as shown.



RE.CNT 3      THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 34 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2000:177864 CAPLUS  
 DN 132:322042  
 TI Water-soluble flavonol (= 3-hydroxy-2-phenyl-4H-1-benzopyran-4-one) derivatives: chemical synthesis, coloring, and antioxidant properties  
 AU Alluis, Bertrand; Perol, Nathalie; El hajji, Hakima; Dangles, Olivier  
 CS UMR-CNRS 5078, Laboratoire des Polyphenols, Universite Claude Bernard-Lyon I, Villeurbanne, F-69622, Fr.  
 SO Helvetica Chimica Acta (2000), 83(2), 428-443  
 CODEN: HCACAV; ISSN: 0018-019X  
 PB Verlag Helvetica Chimica Acta  
 DT Journal  
 LA English  
 AB Water-sol. derivs. of rutin, a very common glycoside of quercetin (= 3,3',4',5,7-pentahydroxyflavone = 2-(3,4-dihydroxyphenyl)-3,5,7-trihydroxy-4H-1-benzopyran-4-one) and a potent plant antioxidant from the flavonol family, were synthesized by simple chem. procedures aimed at introducing carboxy or sulfo groups at the sugar moiety. Such derivs. form stable mol. complexes with malvin, a polyphenolic pigment from the anthocyanin family, and thereby prove to be very effective in the enhancement (hyperchromism) and variation (bathochromism) of natural colors. The H2O-solubilizing carboxylate and sulfate groups are shown to deeply modify the enthalpy-entropy balance of the pigment-flavonol complexation (copigmentation). A mol. interpretation of the complexation-induced bathochromic shift in the pigment VIS band is proposed. Finally, the H2O-sol. rutin derivs. are shown to retain the high antioxidant ability of rutin as evidenced by their efficient trapping of the colored radical DPPH (=2,2-diphenyl-1-(2,4,6-trinitrophenyl)hydrazyl).  
 IT **267005-99-2P**  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (synthesis, coloring and antioxidant properties of water-sol. flavonol derivs.)  
 RN 267005-99-2 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5,7-bis(acetyloxy)-2-[3,4-bis(acetyloxy)phenyl]-3-[[2,3,4-tri-O-acetyl-6-O-(4-O-acetyl-2-O-benzoyl-6-deoxy-.alpha.-L-mannopyranosyl)-.beta.-D-glucopyranosyl]oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 35 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 2000:74967 CAPLUS

DN 132:234311

TI Absolute configuration of novel bioactive flavonoids from *Tephrosia purpurea*

AU Chang, Leng Chee; Chavez, Daniel; Song, Lynda L.; Farnsworth, Norman R.; Pezzuto, John M.; Kinghorn, A. Douglas

CS Program for Collaborative Research in the Pharmaceutical Sciences and Department of Medicinal Chemistry and Pharmacognosy College of Pharmacy, University of Illinois at Chicago, Chicago, IL, 60612, USA

SO Organic Letters (2000), 2(4), 515-518

CODEN: ORLEF7; ISSN: 1523-7060

PB American Chemical Society

DT Journal

LA English

AB Three novel flavonoids, (+)-tephrorins A (I) and B (II) and (+)-tephrosone (III), were isolated from *Tephrosia purpurea*. Their structures were elucidated by NMR spectral anal., and their abs. configurations were detd. by Mosher ester methodol. Compds. I and II are flavanones contg. an unusual THF moiety. Compds. I-III were evaluated for their potential cancer chemopreventive properties using a cell-based quinone reductase induction assay.

IT **261767-63-9P**, Tephrocin B

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

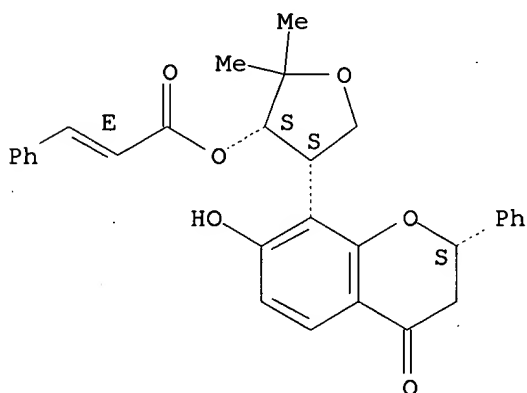
(abs. configuration of bioactive flavonoids from *Tephrosia purpurea*)

RN 261767-63-9 CAPLUS

CN D-erythro-Pentitol, 1,4-anhydro-2,5-dideoxy-2-[(2S)-3,4-dihydro-7-hydroxy-4-oxo-2-phenyl-2H-1-benzopyran-8-yl]-4-C-methyl-, 3-[(2E)-3-phenyl-2-propenoate] (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

Double bond geometry as shown.



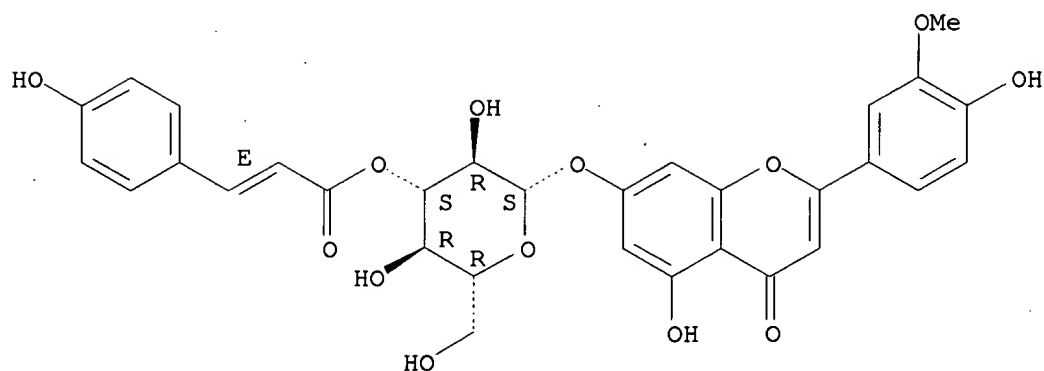
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 36 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 2000:69188 CAPLUS  
 DN 132:231677  
 TI Inhibition of prostaglandin E2 and leukotriene C4 in mouse peritoneal macrophages and thromboxane B2 production in human platelets by flavonoids from *Stachys chrysantha* and *Stachys candida*  
 AU Skaltsa, Helen; Bermejo, Paulina; Lazari, Diamanto; Silvan, Ana Maria; Skaltsounis, Alexios-Leandros; Sanz, Aurora; Abad, Maria Jose  
 CS Division of Pharmacognosy, School of Pharmacy, University of Athens, Athens, GR-157 71, Greece  
 SO Biological & Pharmaceutical Bulletin (2000), 23(1), 47-53  
 CODEN: BPBLEO; ISSN: 0918-6158  
 PB Pharmaceutical Society of Japan  
 DT Journal  
 LA English  
 AB Seven flavonoids of *Stachys chrysantha* and *Stachys candida* have been isolated. The structures of the compds. were elucidated by spectroscopic methods, particularly high field NMR spectroscopy. The effects of the methanol exts. of these two endemic Greek *Stachys* sp. and their main flavonoids were examd. on arachidonic acid (AA) metab. in the cellular system (mouse peritoneal macrophages and human platelets). Their cytotoxicity on cells was also investigated. Most samples assayed did not exhibit any significant effect on prostaglandin E2 (PGE2)-release from calcium ionophore-stimulated mouse peritoneal macrophages. Only chrysoeriol-7-O-.beta.-D-(3"-E-p-coumaroyl)-glucopyranoside (I), at the highest non-cytotoxic dose (50 .mu.M), inhibited the release of PGE2, but this effect is not statistically significant. The release of leukotriene C4 (LTC4) by mouse peritoneal macrophages stimulated with calcium ionophore was inhibited by a crude ext. of *S. chrysantha*, with an IC50 value of 34.3 .mu.g/mL. Xanthomicrol (IC50=29.2 .mu.M) and I (IC50=11.1 .mu.M) also inhibited the release of LTC4, although it showed less potency than the ref. compd. nordihydroguaiaretic acid (NDGA) (IC50=2 .mu.M). However, most samples assayed showed a significant effect on thromboxane B2 (TXB2)-release from calcium ionophore-stimulated human platelets, with inhibition percentages slightly lower than the ref. drug ibuprofen (IC50=7 .mu.M). The IC50 values are: crude ext. of *S. candida* 23.3 .mu.g/mL; crude ext. of *S. chrysantha* 23.1 .mu.g/mL; xanthomicrol 28.8 .mu.M; calycyopterin 2.66 .mu.M and I 8.8 .mu.M. These results indicate that the selective inhibition of TX-synthase enzyme may be the primary target of action of most of these samples, and one of the mechanisms through which thus exert their antiinflammatory effects.

IT **103450-98-2**  
 RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
 (inhibition of prostaglandin E2 and leukotriene C4 in mouse peritoneal macrophages and thromboxane B2 prodn. in human platelets by flavonoids from *Stachys chrysantha* and *S. candida*)

RN 103450-98-2 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5-hydroxy-2-(4-hydroxy-3-methoxyphenyl)-7-[[3-O-[3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.beta.-D-glucopyranosyl]oxy]- (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 37 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1999:803897 CAPLUS

DN 132:251003

TI Properties and quantitative analysis of salicyl derivatives of chrysin

AU Kim, Yeon Hee; Shin, Joon Su; Kim, Yang Bae; Kim, Bak-Kwang

CS College of Pharmacy, Seoul National University, Seoul, 151-742, S. Korea

SO Soul Taehakkyo Yakhak Nonmunjip (1998), 23, 1-11

CODEN: STYNDJ; ISSN: 0250-3336

PB Seoul National University, College of Pharmacy

DT Journal

LA Korean

AB Salicyl derivs. of chrysin were synthesized by condensation with acetylsalicylic acid and chrysin using diethylphosphoryl cyanide and triethylamine in DMF. We obtained 7-O-acetylsalicylchrysin and 7-O-salicylchrysin by silica gel column chromatog. with  $\text{CHCl}_3:\text{MeOH}=50:1$  and  $250:1$ , resp. The structure of 7-O-acetylsalicylchrysin was characterized by NMR, MS, UV, IR, at. absorption. We also investigated the physico-chem. properties and set up the quant. anal. method of this compd. The calibration curve on this compd. by absorption spectrophotometry showed good linear response, and detection limit by HPLC was 0.12 ng. The correlation coeff. of calibration curve of 7-O-salicylchrysin was approx. 0.9999 by absorption spectrophotometry.

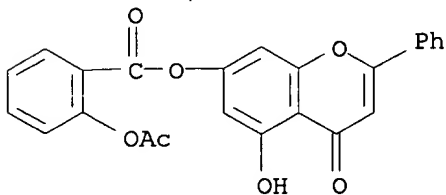
IT 228414-39-9P 262856-66-6P

RL: ANT (Analyte); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)

(properties and quant. anal. of salicyl derivs. of chrysin)

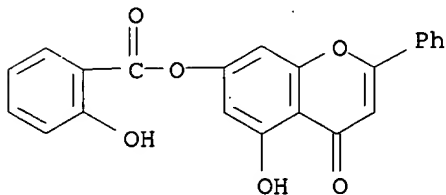
RN 228414-39-9 CAPLUS

CN Benzoic acid, 2-(acetyloxy)-, 5-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)

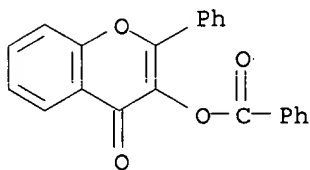


RN 262856-66-6 CAPLUS

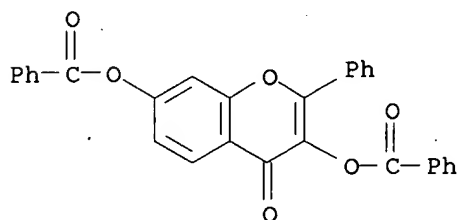
CN Benzoic acid, 2-hydroxy-, 5-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



L14 ANSWER 38 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1999:803610 CAPLUS  
 DN 132:166093  
 TI A Convenient Method for Synthesizing 2-Aryl-3-hydroxy-4-oxo-4H-1-benzopyrans or Flavonols  
 AU Fougereusse, Andre; Gonzalez, Emmanuel; Brouillard, Raymond  
 CS Laboratoire de Chimie des Polyphenols, Universite Louis Pasteur, Strasbourg, 67008, Fr.  
 SO Journal of Organic Chemistry (2000), 65(2), 583-586  
 CODEN: JOCEAH; ISSN: 0022-3263  
 PB American Chemical Society  
 DT Journal  
 LA English  
 OS CASREACT 132:166093  
 AB The title compds. were prepd. Starting materials for the first step were 2-hydroxyacetophenones and benzoyl chlorides.  
 IT **22812-29-9P 258856-69-8P 258856-70-1P 258856-71-2P 258856-72-3P**  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. of arylhydroxyoxobenzopyrans)  
 RN 22812-29-9 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-(benzoyloxy)-2-phenyl- (9CI) (CA INDEX NAME)

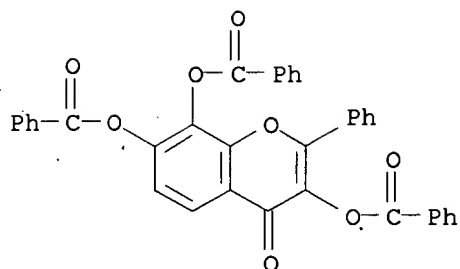


RN 258856-69-8 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3,7-bis(benzoyloxy)-2-phenyl- (9CI) (CA INDEX NAME)



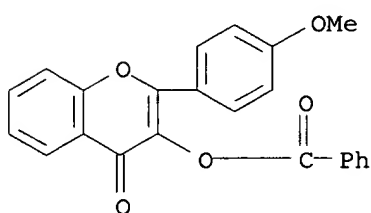
RN 258856-70-1 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3,7,8-tris(benzoyloxy)-2-phenyl- (9CI) (CA INDEX NAME)





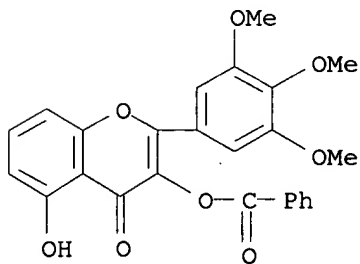
RN 258856-71-2 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-(benzoyloxy)-2-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)



RN 258856-72-3 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-(benzoyloxy)-5-hydroxy-2-(3,4,5-trimethoxyphenyl)- (9CI) (CA INDEX NAME)



RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 39 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1999:792851 CAPLUS

DN 132:342886

TI Cytotoxic activity of kaempferol glycosides against human leukemic cell lines in vitro

AU Dimas, Kostas; Demetzos, Costas; Mitaku, Sofia; Marselos, Marios; Tzavaras, Theodoros; Kokkinopoulos, Dimitrios

CS Department of Immunology, Hellenic Anticancer Institute, Athens, Greece

SO Pharmacological Research (2000), 41(1), 85-88

CODEN: PHMREP; ISSN: 1043-6618

PB Academic Press

DT Journal

LA English

AB Two kaempferol coumaroyl glycosides, platanoside and tiliroside, were isolated from the MeOH ext. of *Platanus orientalis* buds and examd. for their in vitro cytotoxic activity against a panel of human leukemic cell lines. Platanoside exhibited cytotoxic activity against most of the cell lines tested, while tiliroside was active against two of the 9 cell lines tested. Platanoside inhibited the uptake of [3H]thymidine as a marker of DNA synthesis. (c) 2000 The Italian Pharmacological Society.

IT 133740-25-7P, Platanoside

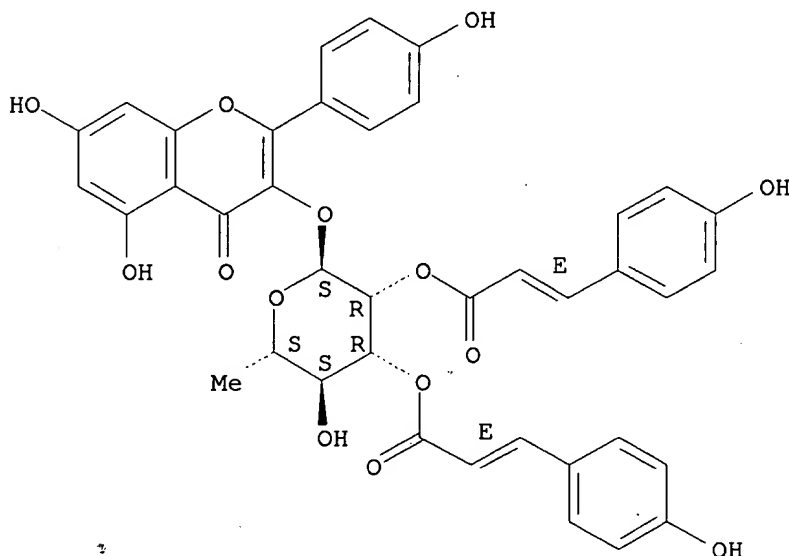
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation) (cytotoxic activity of kaempferol glycosides from *Platanus orientalis* against human leukemic cell lines)

RN 133740-25-7 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-2,3-bis-O-[(2E)-3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



RE.CNT 10

THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 40 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1999:654686 CAPLUS

DN 132:117083

TI Cytotoxicity against human leukemic cell lines, and the activity on the expression of resistance genes of flavonoids from *Platanus orientalis*

AU Mitrocotsa, D.; Bosch, S.; Mitaku, S.; Dimas, C.; Skaltsounis, A. L.; Harvala, C.; Briand, G.; Roussakis, C.

CS Department of Pharmacy, Division of Pharmacognosy, Panepistimiopolis Zografou, University of Athens, Athens, GR-15771, Greece

SO Anticancer Research (1999), 19(3A), 2085-2088

CODEN: ANTRD4; ISSN: 0250-7005

PB International Institute of Anticancer Research

DT Journal

LA English

AB The cytotoxic activity of three flavonoids, belonging to the kaempherol series, was evaluated against 15 human leukemic cell lines. Flavonoids bearing acyl substituents, 2 and 3, were found to be the most active compds. A further compd., 1, was examd. for its ability to modulate the expression of MDR-1 and GST- $\pi$ . resistance genes and compds. 2 and 3 for their effect on the uptake of [3H]-thymidine as a marker of DNA synthesis.

IT 133740-25-7

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

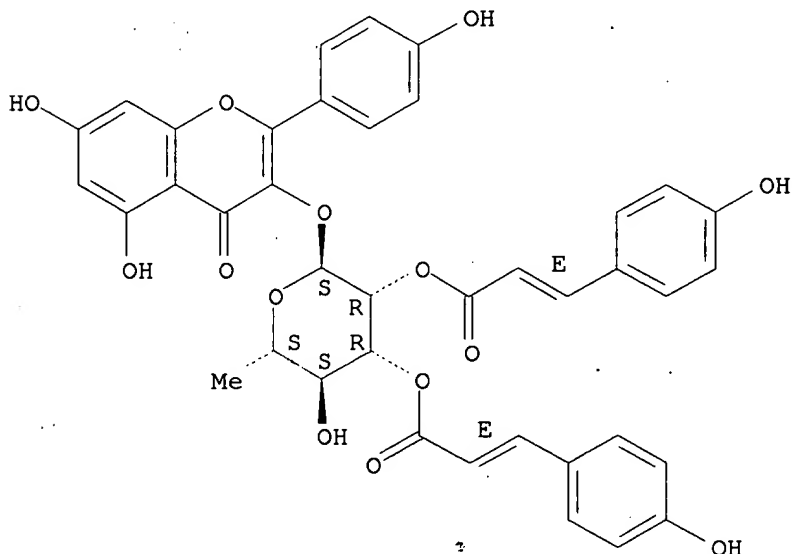
(flavonoids from *Platanus orientalis*: cytotoxicity against human leukemia and effect resistance genes)

RN 133740-25-7 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-2,3-bis-O-[(2E)-3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

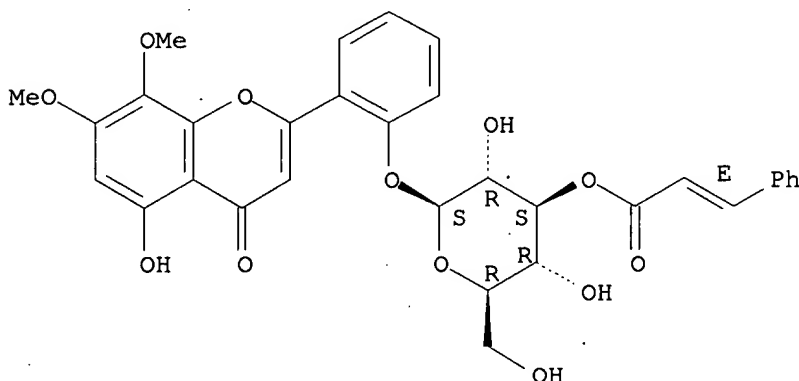
Double bond geometry as shown.



RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 41 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1999:548650 CAPLUS  
 DN 131:269550  
 TI Two acylated flavone glucosides from *Andrographis serpyllifolia*  
 AU Damu, A. G.; Jayaprakasam, B.; Gunasekar, D.; Blond, A.; Bodo, B.  
 CS Natural Products Division, Department of Chemistry, Sri Venkateswara  
 University, Tirupati, 517 502, India  
 SO Phytochemistry (1999), 52(1), 147-151  
 CODEN: PYTCAS; ISSN: 0031-9422  
 PB Elsevier Science Ltd.  
 DT Journal  
 LA English  
 AB Two new acylated flavone glucosides, skullcapflavone I  
 2'-O-.beta.-D-(3''-E-cinnamoyl)glucopyranoside and skullcapflavone I  
 2'-O-.beta.-D-(2''-E-cinnamoyl)glucopyranoside, together with  
 skullcapflavone I 2'-O-.beta.-D-glucopyranoside and andrographidin C have  
 been isolated from the whole plant of *Andrographis serpyllifolia*.  
 Structural elucidation of the glycosides was achieved by various NMR  
 techniques including 1H-1H COSY, HMQC, HMBC and ROESY expts., FAB-mass  
 spectrometry, acid hydrolysis and sapon.  
 IT **245472-31-5P**  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP  
 (Properties); PUR (Purification or recovery); BIOL (Biological study);  
 OCCU (Occurrence); PREP (Preparation)  
 (from *Andrographis serpyllifolia*)  
 RN 245472-31-5 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5-hydroxy-7,8-dimethoxy-2-[2-[[3-O-[(2E)-1-oxo-3-  
 phenyl-2-propenyl]-.beta.-D-glucopyranosyl]oxy]phenyl]- (9CI) (CA INDEX  
 NAME)

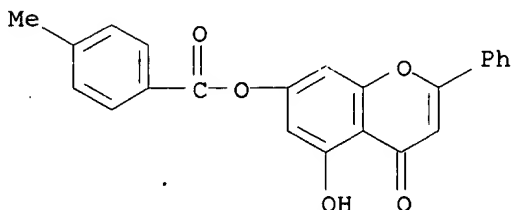
Absolute stereochemistry. Rotation (-).  
 Double bond geometry as shown.



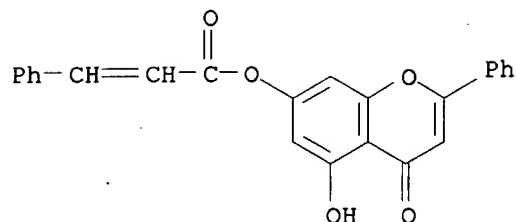
RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

file copy

L14 ANSWER 42 OF 220 CAPLUS COPYRIGHT 2003 ACS  
AN 1999:275290 CAPLUS  
DN 131:58671  
TI Synthesis and hypoglycemic effect of chrysin derivatives  
AU Shin, Joon-Su; Kim, Kyoung-Soon; Kim, Myoung-Bohm; Jeong, Jae-Hoon; Kim, Bak-Kwang  
CS College of Pharmacy, Seoul National University, Seoul, 151-742, S. Korea  
SO Bioorganic & Medicinal Chemistry Letters (1999), 9(6), 869-874  
CODEN: BMCLE8; ISSN: 0960-894X  
PB Elsevier Science Ltd.  
DT Journal  
LA English  
AB A series of 18 chrysin derivs., prepd. by alkylation and condensation, were fully characterized by NMR and other techniques and tested in vivo against the diabetes mellitus. Several modified compds. esp. those with Pr, Bu, octyl and tolyl groups were found to have hypoglycemic effect on diabetic mice in spite of the fact that chrysin itself had inhibited insulin release by 40-60%. None of the test animals died at the max. dose 500 mg/kg and the tested compds. did not cause any significant change in general feature, water and food consumption, body wt. or organ wt. when we examd. the acute oral toxicity of those compds. having significant hypoglycemic effect.  
IT **228405-92-3P**  
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (synthesis and hypoglycemic effect of chrysin derivs.)  
RN 228405-92-3 CAPLUS  
CN Benzoic acid, 4-methyl-, 5-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)

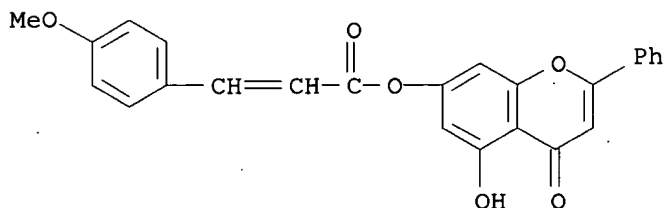


IT **228405-90-1P 228405-91-2P 228405-93-4P 228414-39-9P**  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (synthesis and hypoglycemic effect of chrysin derivs.)  
RN 228405-90-1 CAPLUS  
CN 2-Propenoic acid, 3-phenyl-, 5-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



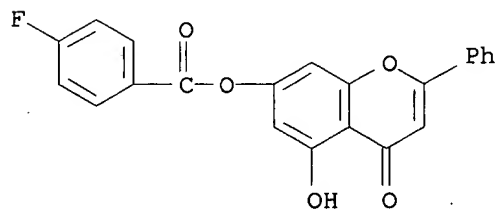
RN 228405-91-2 CAPLUS

CN 2-Propenoic acid, 3-(4-methoxyphenyl)-, 5-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



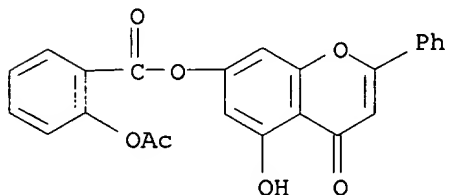
RN 228405-93-4 CAPLUS

CN Benzoic acid, 4-fluoro-, 5-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



RN 228414-39-9 CAPLUS

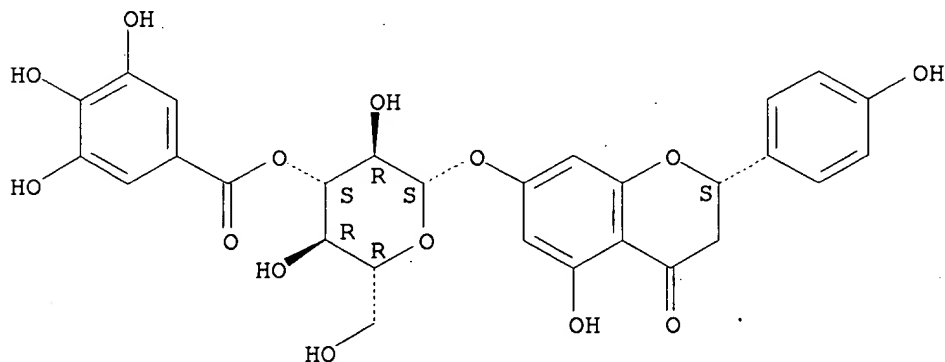
CN Benzoic acid, 2-(acetyloxy)-, 5-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 43 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1999:187641 CAPLUS  
 DN 131:2784  
 TI Glycosides from *Euphorbia aucherii*  
 AU Murillo, R.; Jakupovic, J.  
 CS Escuela de Quimica and CIPRONA (Centro de Investigacion de Productos Naturales), Universidad de Costa Rica, San Jose, Costa Rica  
 SO Ingenieria y Ciencia Quimica (1998), 18(2), 57-60  
 CODEN: ICQUD9; ISSN: 0250-8303  
 PB Colegio Federado de Quimicos y de Ingenieros Quimicos de Costa Rica  
 DT Journal  
 LA Spanish  
 AB Flavonoid, gallate, and acetophenone glycosides were isolated from *Euphorbia aucherii*, collected in Iran, after exhaustive acetylation of the polar fractions. Three of the glycosides (a phloracetophenone glucoside, I, and II) were isolated for the first time.  
 IT **225524-90-3P**  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)  
 (isolation from *Euphorbia aucherii* and structure of)  
 RN 225524-90-3 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5-hydroxy-2-(4-hydroxyphenyl)-7-[[3-O-(3,4,5-trihydroxybenzoyl)-.beta.-D-glucopyranosyl]oxy]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 1      THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 44 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1998:807860 CAPLUS

DN 130:191415

TI Anti-picornavirus activity of synthetic flavon-3-yl esters

AU Conti, C.; Mastromarino, P.; Sgro, R.; Desideri, N.

CS Institute Microbiology, School Medicine, University 'La Sapienza', Rome, 5-00185, Italy

SO Antiviral Chemistry & Chemotherapy (1998), 9(6), 511-515

CODEN: ACCHEH; ISSN: 0956-3202

PB International Medical Press

DT Journal

LA English

AB The in vitro antiviral activity against picornaviruses (rhinovirus serotype 1B and 14, and poliovirus type 2) of new synthetic 3-hydroxyflavones, 3-acetoxyflavones, and substituted cinnamic and benzoic acid flavon-3-yl esters was evaluated. The max. non-toxic concn. of compds. was detd. in a human cell line (HeLa) suitable for the replication of the three viruses. Their antiviral potency was measured by a plaque redn. assay. Generally, rhinoviruses exhibited a higher sensitivity to the new flavonoids than poliovirus. Flavones, with sterically small substituents in position 3, showed good activity against both rhinoviruses tested. However, the introduction of bulky substituents in the same position resulted in analogs with a higher toxicity and often with a lower efficacy.

IT 220608-62-8 220608-65-1 220608-67-3

220608-69-5 220608-72-0 220608-76-4

220608-78-6 220608-79-7 220608-86-6

220608-88-8 220608-91-3 220608-94-6

220608-97-9 220608-99-1 220609-03-0

220609-07-4 220609-10-9 220609-13-2

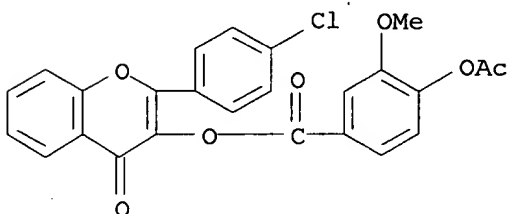
220609-16-5 220609-18-7

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(anti-picornavirus activity of synthetic flavonyl esters in relation to toxicity and structure)

RN 220608-62-8 CAPLUS

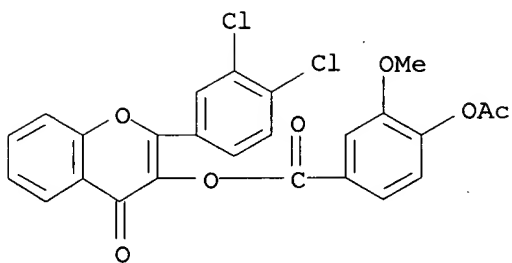
CN Benzoic acid, 4-(acetyloxy)-3-methoxy-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



RN 220608-65-1 CAPLUS

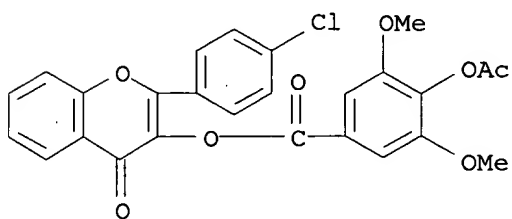
CN Benzoic acid, 4-(acetyloxy)-3-methoxy-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)





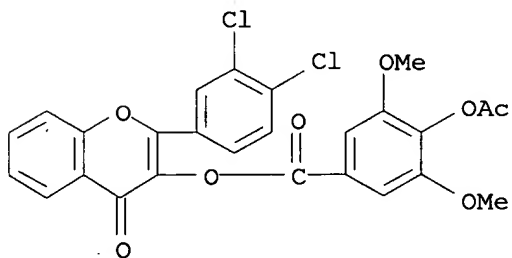
RN 220608-67-3 CAPLUS

CN Benzoic acid, 4-(acetyloxy)-3,5-dimethoxy-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



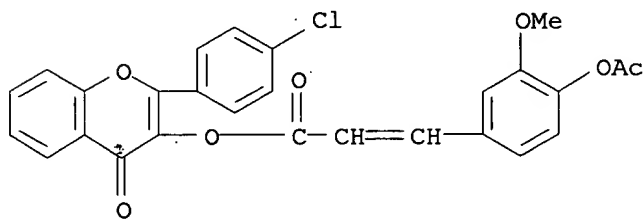
RN 220608-69-5 CAPLUS

CN Benzoic acid, 4-(acetyloxy)-3,5-dimethoxy-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



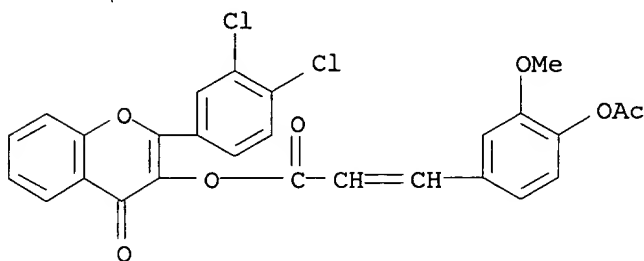
RN 220608-72-0 CAPLUS

CN 2-Propenoic acid, 3-[4-(acetyloxy)-3-methoxyphenyl]-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



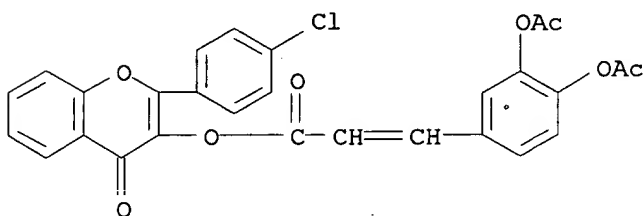
RN 220608-76-4 CAPLUS

CN 2-Propenoic acid, 3-[4-(acetyloxy)-3-methoxyphenyl]-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



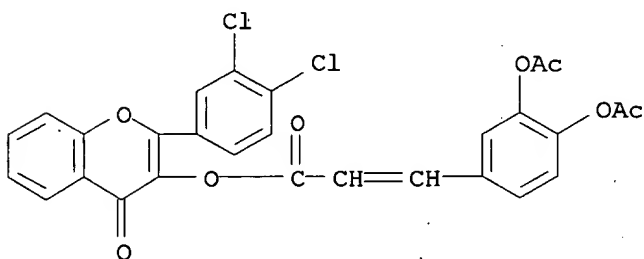
RN 220608-78-6 CAPLUS

CN 2-Propenoic acid, 3-[3,4-bis(acetyloxy)phenyl]-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



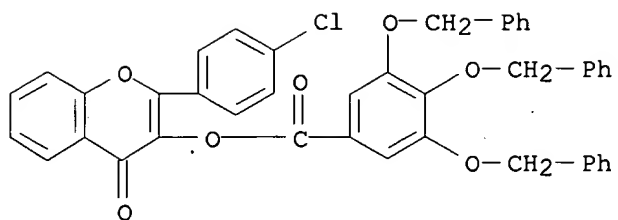
RN 220608-79-7 CAPLUS

CN 2-Propenoic acid, 3-[3,4-bis(acetyloxy)phenyl]-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



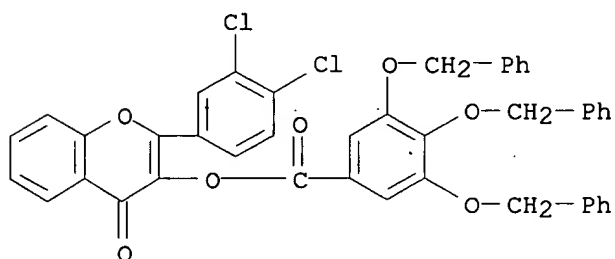
RN 220608-86-6 CAPLUS

CN Benzoic acid, 3,4,5-tris(phenylmethoxy)-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



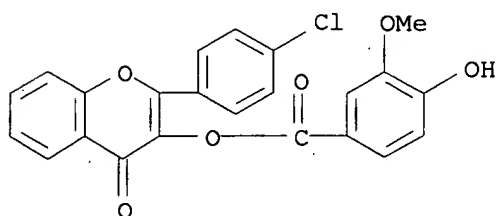
RN 220608-88-8 CAPLUS

CN Benzoic acid, 3,4,5-tris(phenylmethoxy)-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



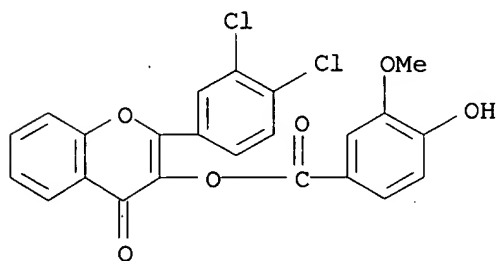
RN 220608-91-3 CAPLUS

CN Benzoic acid, 4-hydroxy-3-methoxy-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



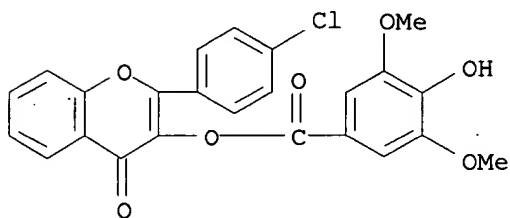
RN 220608-94-6 CAPLUS

CN Benzoic acid, 4-hydroxy-3-methoxy-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



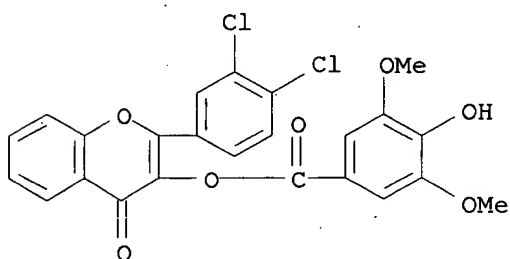
RN 220608-97-9 CAPLUS

CN Benzoic acid, 4-hydroxy-3,5-dimethoxy-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



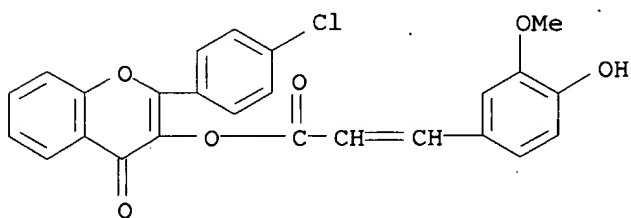
RN 220608-99-1 CAPLUS

CN Benzoic acid, 4-hydroxy-3,5-dimethoxy-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



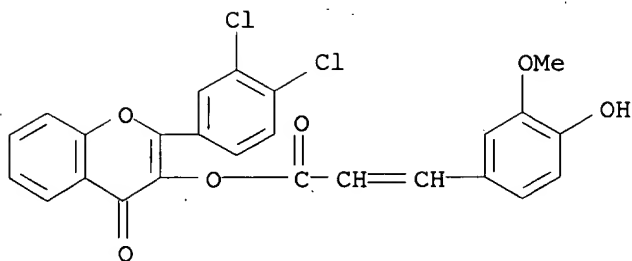
RN 220609-03-0 CAPLUS

CN 2-Propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



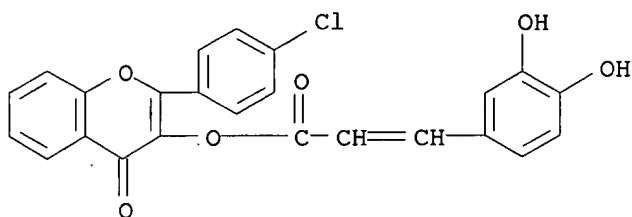
RN 220609-07-4 CAPLUS

CN 2-Propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



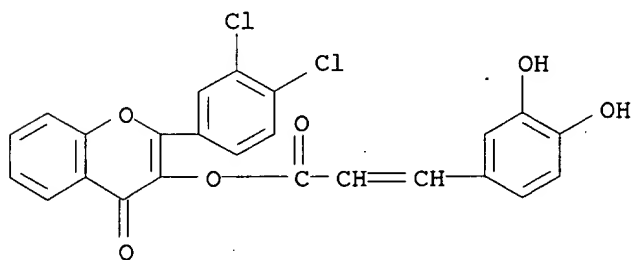
RN 220609-10-9 CAPLUS

CN 2-Propenoic acid, 3-(3,4-dihydroxyphenyl)-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



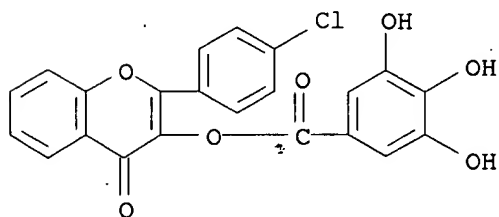
RN 220609-13-2 CAPLUS

CN 2-Propenoic acid, 3-(3,4-dihydroxyphenyl)-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



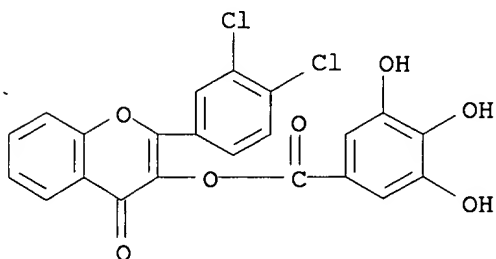
RN 220609-16-5 CAPLUS

CN Benzoic acid, 3,4,5-trihydroxy-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



RN 220609-18-7 CAPLUS

CN Benzoic acid, 3,4,5-trihydroxy-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 45 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1998:807847 CAPLUS

DN 130:177180

TI Synthesis and anti-human immunodeficiency virus type 1 integrase activity of hydroxybenzoic and hydroxycinnamic acid flavon-3-yl esters

AU Desideri, N.; Sestili, I.; Stein, M. L.; Tramontano, E.; Corrias, S.; La Colla, P.

CS Dipartimento Studi Farmaceutici, Universita 'La Sapienza' Roma, Rome, 00185, Italy

SO Antiviral Chemistry &amp; Chemotherapy (1998), 9(6), 497-509

CODEN: ACCHEH; ISSN: 0956-3202

PB International Medical Press

DT Journal

LA English

AB A series of new hydroxybenzoic and hydroxycinnamic acid flavon-3-yl esters were synthesized in order to obtain compds. targeting the human immunodeficiency virus (HIV) type 1 integrase (IN). The esters were tested for anti-IN and anti-reverse transcriptase (RT) activity in enzyme assays and for anti-HIV-1, anti-proliferative and anti-topoisomerase activity in cell-based assays. In enzyme assays, the two gallic acid flavon-3-yl esters showed a notable IN inhibition (IC50 values were 8.3 and 9.1 .mu.M, resp.), while the two caffeic acid flavon-3-yl esters exhibited a modest activity (IC50 75 and 60 .mu.M, resp.). Replacement of hydroxyl groups resulted in loss of potency. Caffeic acid 3',4'-dichloroflavon-3-yl ester also inhibited the RT activity whereas it was not active on human topoisomerases. It therefore represents an interesting example of a compd. specifically targeting more than one step of the virus replication cycle.

IT 220608-62-8P 220608-65-1P 220608-67-3P

220608-69-5P 220608-72-0P 220608-76-4P

220608-78-6P 220608-79-7P 220608-86-6P

220608-88-8P 220608-91-3P 220608-94-6P

220608-97-9P 220608-99-1P 220609-03-0P

220609-07-4P 220609-10-9P 220609-13-2P

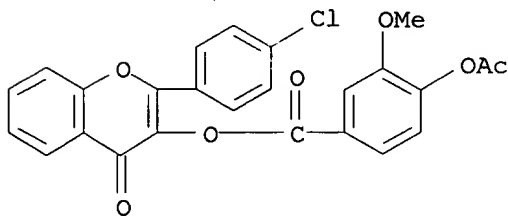
220609-16-5P 220609-18-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. and anti-HIV 1 integrase activity of hydroxybenzoic and hydroxycinnamic acid flavon-3-yl esters)

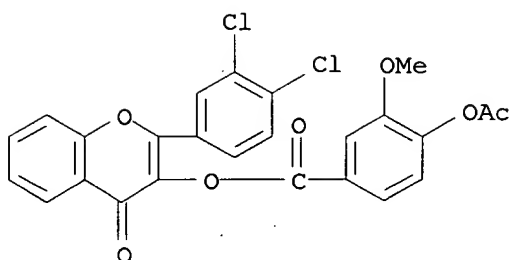
RN 220608-62-8 CAPLUS

CN Benzoic acid, 4-(acetyloxy)-3-methoxy-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



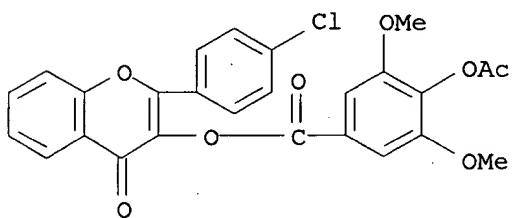
RN 220608-65-1 CAPLUS

CN Benzoic acid, 4-(acetyloxy)-3-methoxy-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



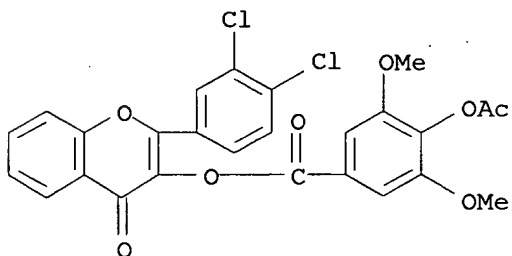
RN 220608-67-3 CAPLUS

CN Benzoic acid, 4-(acetyloxy)-3,5-dimethoxy-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



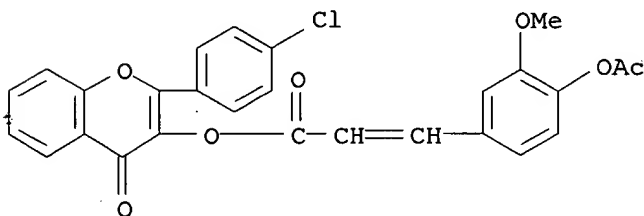
RN 220608-69-5 CAPLUS

CN Benzoic acid, 4-(acetyloxy)-3,5-dimethoxy-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



RN 220608-72-0 CAPLUS

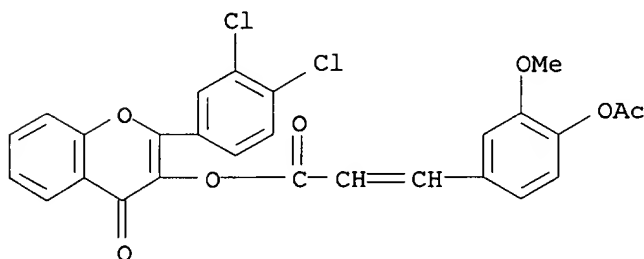
CN 2-Propenoic acid, 3-[4-(acetyloxy)-3-methoxyphenyl]-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)





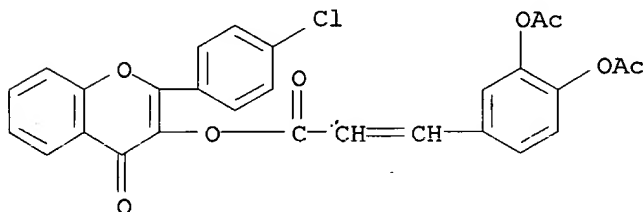
RN 220608-76-4 CAPLUS

CN 2-Propenoic acid, 3-[4-(acetyloxy)-3-methoxyphenyl]-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



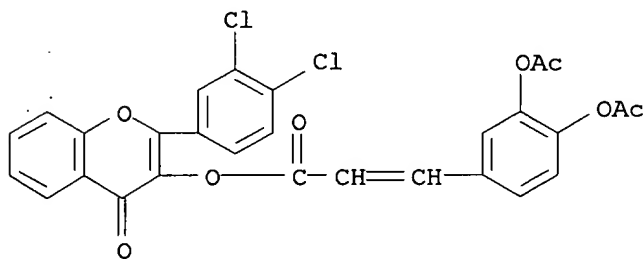
RN 220608-78-6 CAPLUS

CN 2-Propenoic acid, 3-[3,4-bis(acetyloxy)phenyl]-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



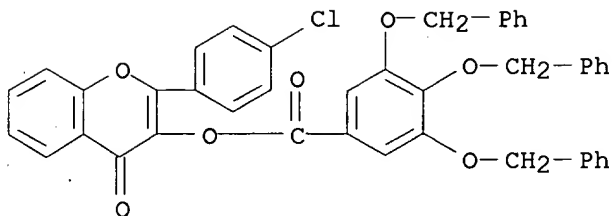
RN 220608-79-7 CAPLUS

CN 2-Propenoic acid, 3-[3,4-bis(acetyloxy)phenyl]-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



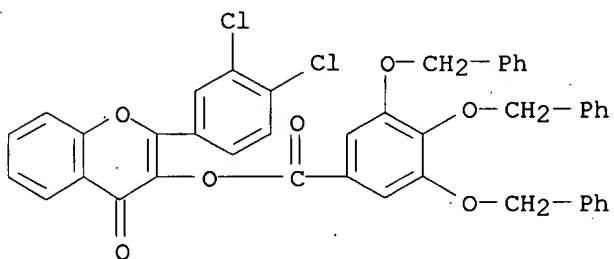
RN 220608-86-6 CAPLUS

CN Benzoic acid, 3,4,5-tris(phenylmethoxy)-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



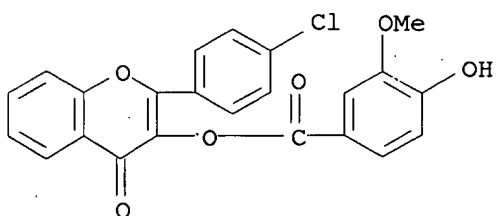
RN 220608-88-8 CAPLUS

CN Benzoic acid, 3,4,5-tris(phenylmethoxy)-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



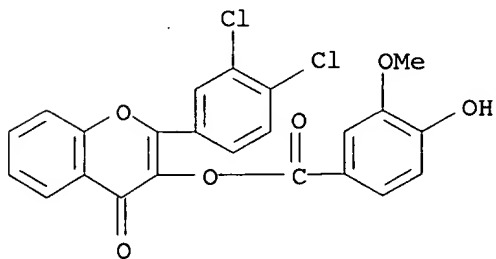
RN 220608-91-3 CAPLUS

CN Benzoic acid, 4-hydroxy-3-methoxy-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



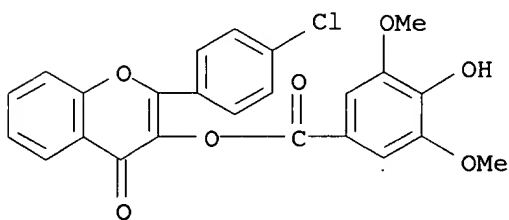
RN 220608-94-6 CAPLUS

CN Benzoic acid, 4-hydroxy-3-methoxy-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



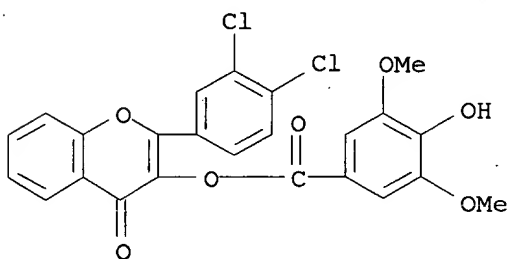
RN 220608-97-9 CAPLUS

CN Benzoic acid, 4-hydroxy-3,5-dimethoxy-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



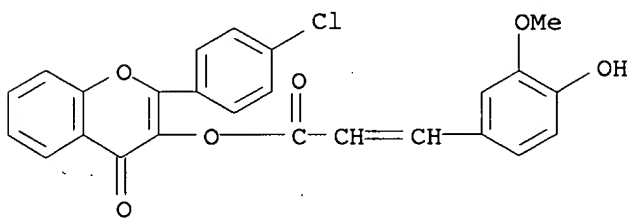
RN 220608-99-1 CAPLUS

CN Benzoic acid, 4-hydroxy-3,5-dimethoxy-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



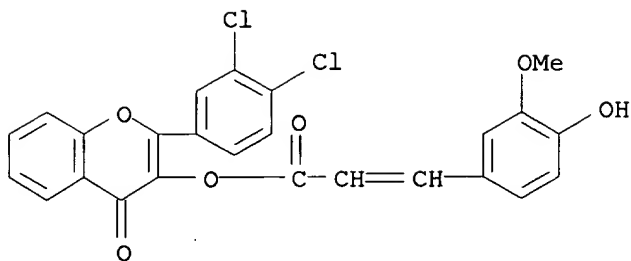
RN 220609-03-0 CAPLUS

CN 2-Propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



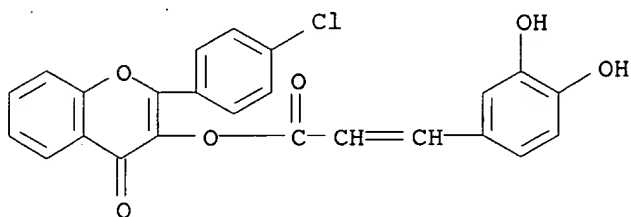
RN 220609-07-4 CAPLUS

CN 2-Propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



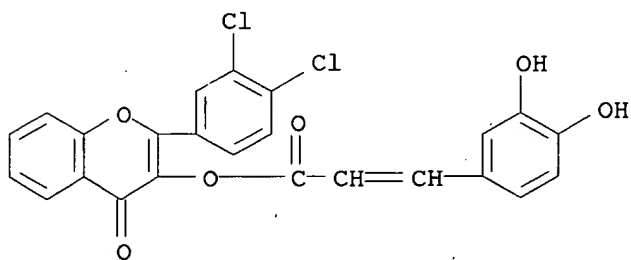
RN 220609-10-9 CAPLUS

CN 2-Propenoic acid, 3-(3,4-dihydroxyphenyl)-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



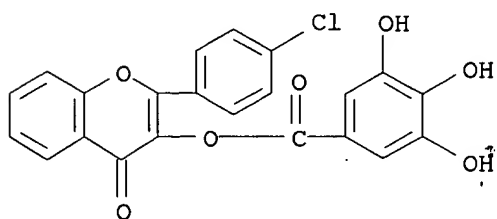
RN 220609-13-2 CAPLUS

CN 2-Propenoic acid, 3-(3,4-dihydroxyphenyl)-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



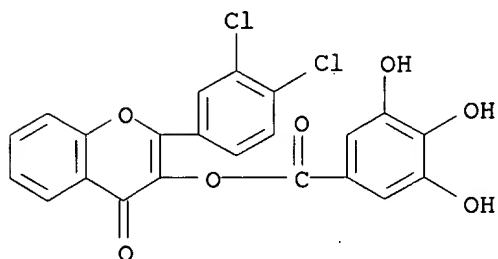
RN 220609-16-5 CAPLUS

CN Benzoic acid, 3,4,5-trihydroxy-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



RN 220609-18-7 CAPLUS

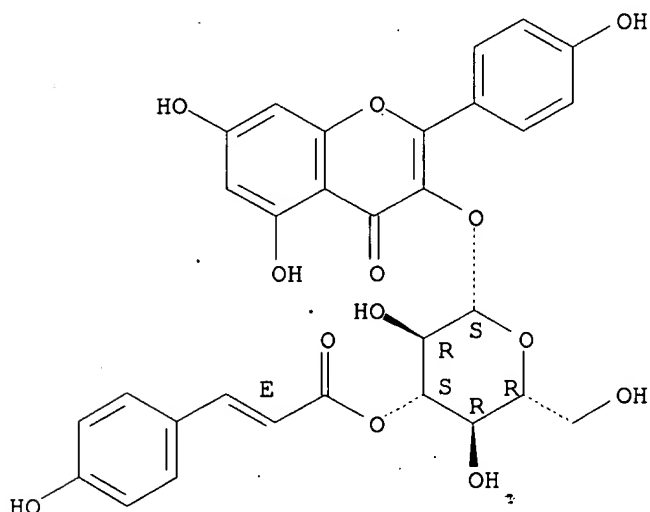
CN Benzoic acid, 3,4,5-trihydroxy-, 2-(3,4-dichlorophenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



RE.CNT 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 46 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1998:724682 CAPLUS  
 DN 130:78701  
 TI Acylated flavonol glycosides from leaves of *Stenochlaena palustris*  
 AU Liu, Hongmei; Orjala, Jimmy; Sticher, Otto; Rali, Topul  
 CS Department of Pharmacy, Swiss Federal Institute of Technology (ETH)  
 Zurich, Zurich, CH-8057, Switz.  
 SO Journal of Natural Products (1999), 62(1), 70-75  
 CODEN: JNPRDF; ISSN: 0163-3864  
 PB American Chemical Society  
 DT Journal  
 LA English  
 AB From the leaves of *Stenochlaena palustris* five new O-acylated flavonol glycosides, stenopalustrosides A-E, have been isolated along with five known compds., kaempferol 3-O-(3''-O-E-p-coumaroyl)-(6''-O-E-feruloyl)-.beta.-D-glucopyranoside, kaempferol 3-O-(3'',6''-di-O-E-p-coumaroyl)-.beta.-D-glucopyranoside, kaempferol 3-O-(3''-O-E-p-coumaroyl)-.beta.-D-glucopyranoside, kaempferol 3-O-(6''-O-E-p-coumaroyl)-.beta.-D-glucopyranoside; and kaempferol 3-O-.beta.-D-glucopyranoside. The structures of the isolates were elucidated by spectroscopic methods, mainly 1D and 2D NMR. Stenopalustrosides A-D showed significant antibacterial activities against Gram-pos. strains. The structural difference between the isolated antibacterial and nonantibacterial compds. is discussed.  
 IT **218432-13-4**  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)  
 (from leaves of *Stenochlaena palustris*)  
 RN 218432-13-4 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5,7-dihydroxy-2-(4-hydroxyphenyl)-3-[[3-O-[(2E)-3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.beta.-D-glucopyranosyl]oxy]- (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 47 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1998:709662 CAPLUS

DN 130:65484

TI Bay Laurel Contains Antimutagenic Kaempferyl Coumarate Acting against the Dietary Carcinogen 3-Amino-1-methyl-5H-pyrido[4,3-b]indole (Trp-P-2)

AU Samejima, Kazuyasu; Kanazawa, Kazuki; Ashida, Hitoshi; Danno, Gen-ichi

CS Laboratory of Food and Nutritional Chemistry Faculty of Agriculture, Kobe University, Rokkodai Nada-ku Kobe, 657-8501, Japan

SO Journal of Agricultural and Food Chemistry (1998), 46(12), 4864-4868  
CODEN: JAFCAU; ISSN: 0021-8561

PB American Chemical Society

DT Journal

LA English

AB A novel antimutagen in bay laurel (*Laurus nobilis* L.) acts against the dietary carcinogen 3-amino-1-methyl-5H-pyrido[4,3-b]indole (Trp-P-2). The antimutagen was purified chromatog. from an Et acetate ext. of bay leaf and identified instrumentally as 3-kaempferyl p-coumarate. The yield was 20 mg from 100 g of bay, and its IC50 value, the amt. required for 50% inhibition of the mutagenicity of 20 ng of Trp-P-2, was 1.9 .mu.g. This value is close to those for strong antimutagens such as flavones and flavonols. The antimutagenicity was due to a desmutagenic action that inhibited the metabolic activation of Trp-P-2 to its ultimate carcinogenic form. The kaempferyl moiety contributed to the activity. Interestingly, this compd. had weak bioantimutagenicity and could also suppress the mutagenicity of direct mutagens.

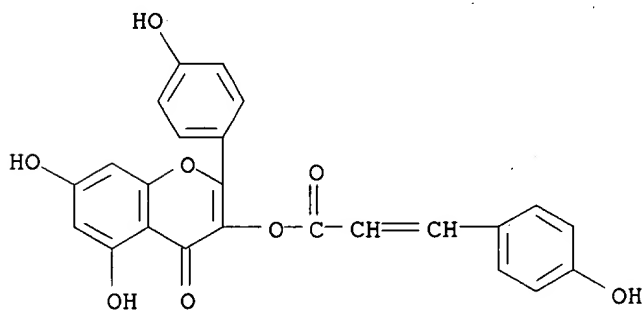
IT 41496-40-6

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)

(bay laurel antimutagenic kaempferyl coumarate acting against dietary carcinogen Trp-P-2)

RN 41496-40-6 CAPLUS

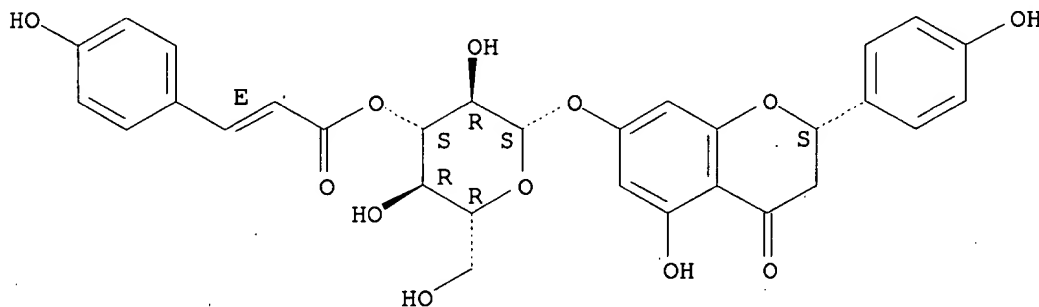
CN 2-Propenoic acid, 3-(4-hydroxyphenyl)-, 5,7-dihydroxy-2-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 48 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1998:707653 CAPLUS  
 DN 130:122166  
 TI Flavonoids from *Speranskia tuberculata*  
 AU Li, Yanmei; Zhao, Yuying; Fan, Yunbai; Wang, Xuan; Cai, Lining  
 CS Department of Phytochemistry, School of Pharmacy, Beijing Medical University, Beijing, 100083, Peop. Rep. China  
 SO Journal of Chinese Pharmaceutical Sciences (1997), 6(2), 70-74  
 CODEN: JCHSE4; ISSN: 1003-1057  
 PB Beijing Medical University, School of Pharmaceutical Sciences.  
 DT Journal  
 LA English  
 AB Flavonoids from *Speranskia Tuberculata* were studied. 6 Flavonoids were sepd. from the aerial parts of *Speranskia tuberculata* (Bunge) baill. On the basis of chem. and phys. properties and spectral anal., their structures were identified as diosmetin, luteolin, narigenin-7-O-.beta.-D-(4''-p-coumaroyl)glucopyranoside (I), narigenin-7-O-.beta.-D-(3''-p-coumaroyl)glucopyranoside, amentoflavone and scolymoside. All the compds. were obtained from *Speranskia tuberculata* for the first time and I was a new compd. named as speranskoside.  
 IT **219840-32-1P**, Narigenin-7-O-.beta.-D-(3''-p-coumaroyl)-glucopyranoside  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)  
 (from *Speranskia tuberculata*)  
 RN 219840-32-1 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5-hydroxy-2-(4-hydroxyphenyl)-7-[[3-O-[(2E)-3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.beta.-D-glucopyranosyl]oxy]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT



L14 ANSWER 49 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1998:454361 CAPLUS

DN 129:197563

TI Study on the inhibitory effect of tannins and flavonoids against the 1,1-diphenyl-2-picrylhydrazyl radical

AU Yokozawa, Takako; Chen, Cui Ping; Dong, Erbo; Tanaka, Takashi; Nonaka, Gen-Ichiro; Nishioka, Itsuo

CS Research Institute for Wakan-Yaku, Toyama Medical and Pharmaceutical University, Toyama, 930-0194, Japan

SO Biochemical Pharmacology (1998), 56(2), 213-222

CODEN: BCPA6; ISSN: 0006-2952

PB Elsevier Science Inc.

DT Journal

LA English

AB Fifty-one tannins and forty-one flavonoids isolated from Oriental medicinal herbs were evaluated for their antioxidant ability with a 1,1-diphenyl-2-picrylhydrazyl (DPPH) radical-generating system. The results showed that tannins and certain flavonoids are potential free-radical scavengers, and that their activity against the DPPH radical is closely assocd. with their chem. structure. A comparison of the two classes of compds. showed that tannins have more potential than flavonoids because almost all the tannins demonstrated significant scavenging action within a low concn. range, whereas the activity of flavonoids varied distinctively among the different compds. An increase of galloyl groups, mol. wt., and ortho-hydroxyl structure enhanced the activity of tannins, whereas the no. and position of hydroxyl groups were important features for the scavenging of free radicals by flavonoids. Moreover, it appeared that when the free hydroxyl group was methoxylated or glycosylated, the inhibitory activity was obviously decreased or even abolished.

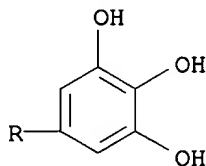
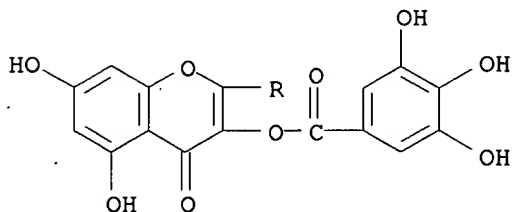
IT 212066-03-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(inhibitory effect of tannins and flavonoids against 1,1-diphenyl-2-picrylhydrazyl radical)

RN 212066-03-0 CAPLUS

CN Benzoic acid, 3,4,5-trihydroxy-, 5,7-dihydroxy-4-oxo-2-(3,4,5-trihydroxyphenyl)-4H-1-benzopyran-3-yl ester (9CI) (CA INDEX NAME)



L14 ANSWER 50 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1998:379395 CAPLUS

DN 129:148840

TI A practical synthesis of 3-methoxyflavones. [Erratum to document cited in CA127:293025]

AU Deng, Bo-Liang; Lepoivre, Jozef Arsene; Lemiere, Guy; Dommissse, Roger; Claeyss, Magda; Boers, Frank; De Groot, Alex

CS Dep. Chem., Univ. Antwerp, Antwerp, B-2020, Belg.

SO European Journal of Organic Chemistry (1998), (6), 1243

CODEN: EJOCFK; ISSN: 1434-193X

PB Wiley-VCH Verlag GmbH

DT Journal

LA English

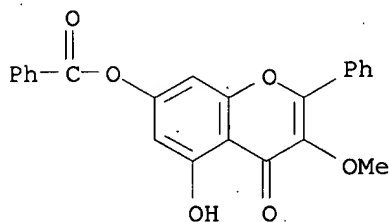
AB In Table 3, the footnote of column Purifn. method should be [b] instead of [a]; method A for compd. 32 in this column should be deleted. The correct Table 4 is given. In Table 5, the values of compd. 23 in columns 3'(2'') and 6'(6'') should be 129.9 instead of 128.4; in footnote[a] ref. should be made to Table 4 instead of Table 3; and in footnote [i] the value 129.9 should be replaced by 128.4. On page 2175, at the end of the paragraph describing the synthesis of compd. 5, the name of compd. 8 should be 5-benzoyloxy-5-hydroxy-3-methoxyflavone instead of 5-benzoyloxy-8-hydroxy-methoxyflavone.

IT **95811-79-3P 197245-61-7P**

RL: BYP (Byproduct); PREP (Preparation)  
(synthesis of methoxyflavones (Erratum))

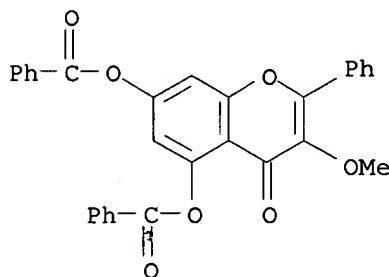
RN 95811-79-3 CAPLUS

CN 4H-1-Benzopyran-4-one, 7-(benzoyloxy)-5-hydroxy-3-methoxy-2-phenyl- (9CI)  
(CA INDEX NAME)



RN 197245-61-7 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-bis(benzoyloxy)-3-methoxy-2-phenyl- (9CI) (CA INDEX NAME)

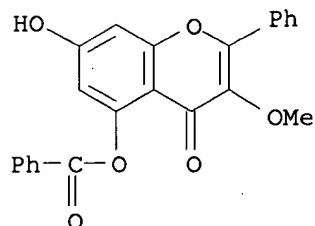


IT **197245-63-9P**

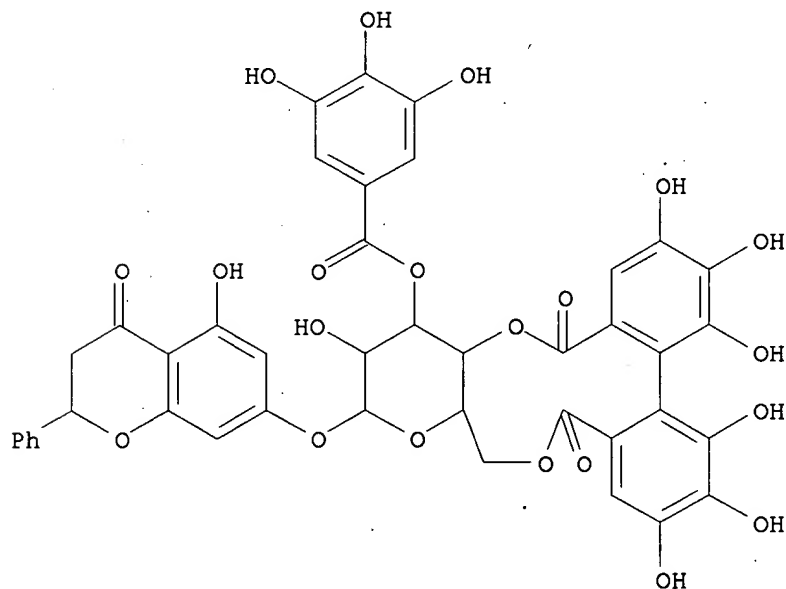
RL: SPN (Synthetic preparation); PREP (Preparation)  
(synthesis of methoxyflavones (Erratum))

RN 197245-63-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 5-(benzoyloxy)-7-hydroxy-3-methoxy-2-phenyl- (9CI)  
(CA INDEX NAME)



L14 ANSWER 51 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1998:275203 CAPLUS  
 DN 128:255130  
 TI Two Tannins from *Phyllanthus tenellus*  
 AU Huang, Yu-Lin; Chen, Chien-Chih; Hsu, Feng-Lin; Chen, Chieh-Fu  
 CS Graduate Institute of Pharmaceutical Sciences, Taipei Medical College, Taipei, Taiwan  
 SO Journal of Natural Products (1998), 61(4), 523-524  
 CODEN: JNPRDF; ISSN: 0163-3864  
 PB American Chemical Society.  
 DT Journal  
 LA English  
 AB Two novel tannins, pinocembrin-7-O-[4'',6''-(S)-hexahydroxydiphenoyl]-.beta.-D-glucose (I; R = H) and pinocembrin-7-O-[3''-O-galloyl-4'',6''-(S)-hexahydroxydiphenoyl]-.beta.-D-glucose [I; R = COC6H2(OH)3-3,4,5] were isolated from *Phyllanthus tenellus*. The structures of new tannins were established on the basis of spectral and chem. evidence.  
 IT 205370-59-8  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)  
 (isolation and structure of tannins from *Phyllanthus tenellus*)  
 RN 205370-59-8 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 7-[[[4,6-O-[[[(S)-4,4',5,5',6,6'-hexahydroxy[1,1'-biphenyl]-2,2'-diyl]dicarbonyl]-3-O-(3,4,5-trihydroxybenzoyl)-.beta.-D-glucopyranosyl]oxy]-2,3-dihydro-5-hydroxy-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)



L14 ANSWER 52 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1998:224110 CAPLUS

DN 128:268240

TI Acylated kaempferol glycosides from *Laurus nobilis* leaves

AU Fiorini, Christel; David, Bruno; Fouraste, Isabelle; Vercauteren, Joseph

CS Centre de Recherche des Substances Naturelles, Institut de Recherche

Pierre Fabre, Gaillac, F-81603, Fr.

SO Phytochemistry (1998), 47(5), 821-824

CODEN: PYTCAS; ISSN: 0031-9422

PB Elsevier Science Ltd.

DT Journal

LA English

AB *Laurus nobilis* leaves yielded four non-polar flavonoids:

kaempferol-3-O-.alpha.-L-(3',4'-di-E-p-coumaroyl)-rhamnoside,

kaempferol-3-O-.alpha.-L-(2',4'-di-E-p-coumaroyl)-rhamnoside,

kaempferol-3-O-.alpha.-L-(2'-E-p-coumaroyl)-rhamnoside and a new product

kaempferol-3-O-.alpha.-L-(2',4'-di-Z-p-coumaroyl)-rhamnoside. Structural elucidation was achieved by UV, 1D- and 2D-NMR expts., mass spectrometry, acid hydrolysis and sapon.

IT **163434-73-9P 205534-16-3P 205534-17-4P**

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PUR (Purification or recovery); RCT (Reactant); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); RACT (Reactant or reagent)

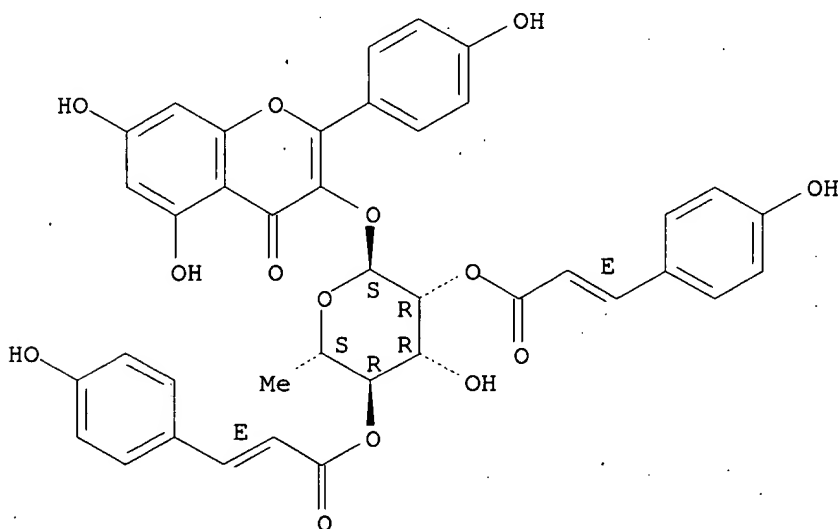
(isolation of acylated kaempferol glycosides from *Laurus nobilis* leaves)

RN 163434-73-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-2,4-bis-O-[3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)-, (E,E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

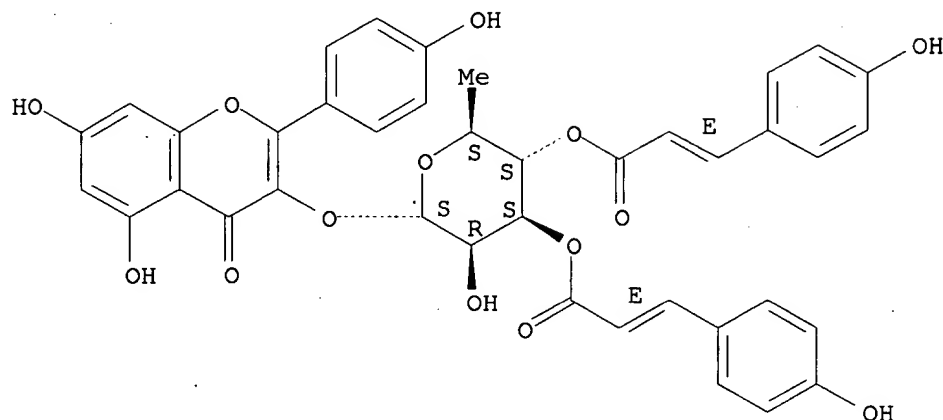
Double bond geometry as shown.



RN 205534-16-3 CAPLUS

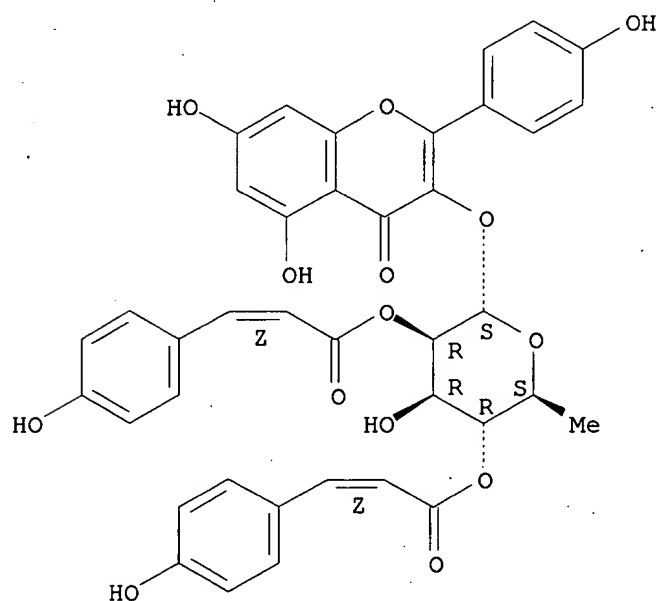
CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-3,4-bis-O-[(2E)-3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



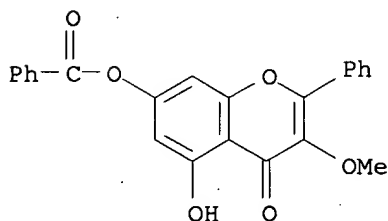
RN 205534-17-4 CAPLUS  
CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-2,4-bis-O-[(2Z)-3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.

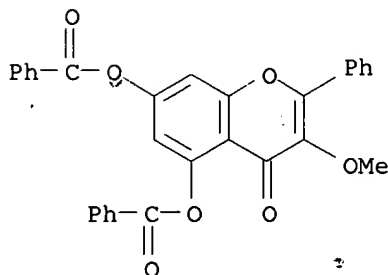


RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 53 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1997:638367 CAPLUS  
 DN 127:293025  
 TI A practical synthesis of 3-methoxyflavones  
 AU Deng, Bo Liang; Lepoivre, Jozef Arsene; Lemiere, Guy; Dommissie, Roger;  
 Claey, Magda; Boers, Frank; De Groot, Alex  
 CS Dep. Chem., Univ. Antwerp, Antwerp, B-2020, Belg.  
 SO Liebig's Annalen/Recueil (1997), (10), 2169-2175  
 CODEN: LIARFV  
 PB Wiley-VCH  
 DT Journal  
 LA English  
 OS CASREACT 127:293025  
 AB Some 3-methoxyflavones were known to possess anti-picornavirus properties.  
 To study the structure-activity relationship, attempts to prep.  
 3-methoxyflavone by literature methods were unsuccessful. Thus, the  
 Baker-Venkatarman rearrangement was modified by using a solid base and a  
 phase-transfer catalyst. After searching optimal reaction conditions and  
 a study of the intermediate formed in a model reaction, good yields were  
 obtained for a series of 3-methoxyflavones. Addnl., some of the  
 corresponding 7-O-Bu derivs. could be isolated as side products.  
 IT **95811-79-3P 197245-61-7P**  
 RL: BYP (Byproduct); PREP (Preparation)  
 (synthesis of methoxyflavones)  
 RN 95811-79-3 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 7-(benzoyloxy)-5-hydroxy-3-methoxy-2-phenyl- (9CI)  
 (CA INDEX NAME)



RN 197245-61-7 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5,7-bis(benzoyloxy)-3-methoxy-2-phenyl- (9CI) (CA  
 INDEX NAME)

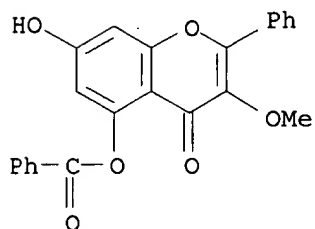


IT **197245-63-9P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)

(synthesis of methoxyflavones)

RN 197245-63-9 CAPLUS

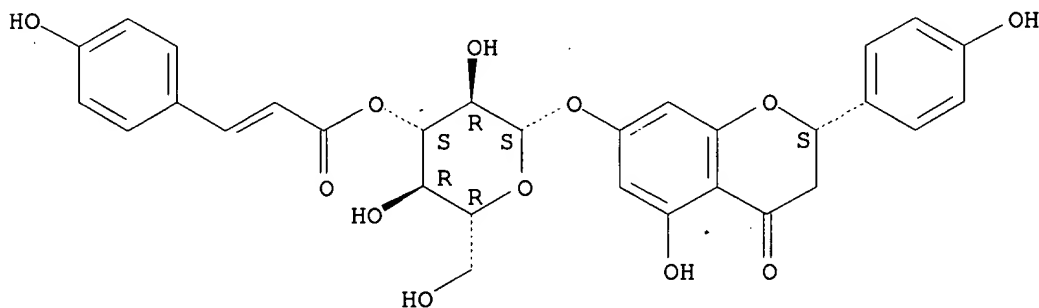
CN 4H-1-Benzopyran-4-one, 5-(benzoyloxy)-7-hydroxy-3-methoxy-2-phenyl- (9CI)  
(CA INDEX NAME)





L14 ANSWER 54 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1997:526515 CAPLUS  
 DN 127:238979  
 TI A bioactive naringenin coumaroyl glucoside from *Mabea fistulifera* subsp. *robusta*  
 AU Garcez, W. S.; Garcez, F. R.; Pellicciari, I.; Hara, S. M.; Ferreira, F. C.; Nakasse, L. Y.; Siqueira, J. M.  
 CS Departamento Quimica, Universidade Federal Mato Grosso do Sul, Campo Grande, 79070, Brazil  
 SO *Planta Medica* (1997), 63(4), 386  
 CODEN: PLMEAA; ISSN: 0032-0943  
 PB Thieme  
 DT Journal  
 LA English  
 AB Ethanolic exts. of fruits of *M. fistulifera* collected in Brazil showed lethality to brine shrimp larvae. Bioassay-directed fractionation identified naringenin 7-O-.beta.-(3",6"-di-p-coumaroyl)-glucoside as the bioactive compd.  
 IT **84813-73-0**  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)  
 (bioactive naringenin coumaroyl glucoside from *Mabea fistulifera*)  
 RN 84813-73-0 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 2,3-dihydro-5-hydroxy-2-(4-hydroxyphenyl)-7-[[3-O-[3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.beta.-D-glucopyranosyl]oxy]-, (S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry unknown.



L14 ANSWER 55 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1997:476796 CAPLUS

DN 127:217780

TI Four new hydrolyzable tannins and an acylated flavonol glycoside from *Euphorbia maculata*

AU Amakura, Yoshiaki; Kawada, Keita; Hatano, Tsutomu; Agata, Isao; Sugaya, Takeshi; Nishibge, Sansei; Okuda, Takuo; Yoshida, Takashi

CS Fac. of Pharm. Sci., Okayama Univ., Tsushima, 700, Japan

SO Canadian Journal of Chemistry (1997), 75(6), 727-733

CODEN: CJCHAG; ISSN: 0008-4042

PB National Research Council of Canada

DT Journal

LA English

AB The structure of a new acylated flavonol glycoside from the leaf ext. of *Euphorbia maculata* was characterized as quercetin 3-O-(2'',3''-di-O-galloyl)-.beta.-D-glucopyranoside, Four new hydrolyzable tannins together with twelve known tannins were also isolated and their structures were established by spectral and chem. means as 1,2,6-tri-O-galloyl-.alpha.-D-glucose, 1-O-galloyl-2,4;3,6-di-O-chebuloyl-.beta.-D-glucose (eumaculin E), and dimers (eumaculins B and D) having a tergalloyl and a macaranoyl group as the linking unit of monomers, resp.

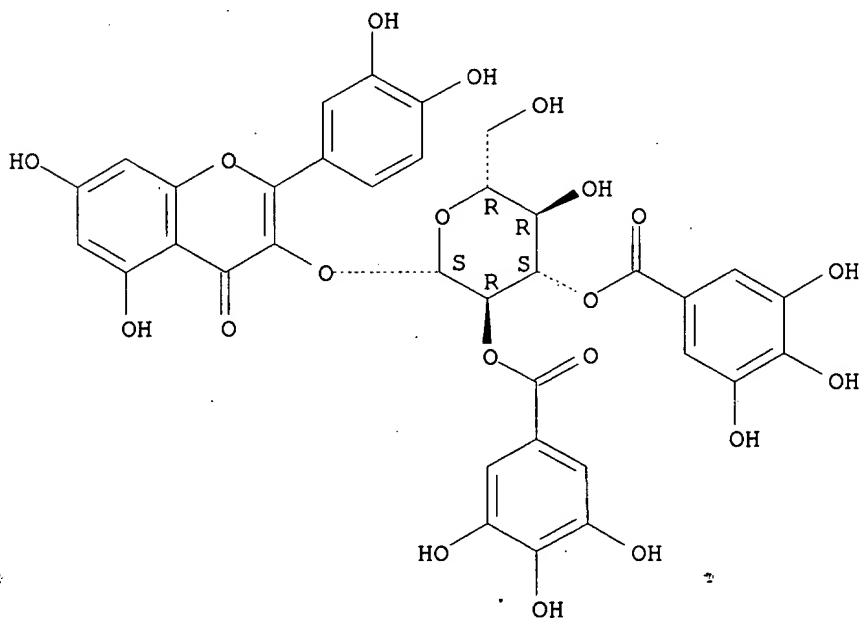
IT 194852-68-1P

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)  
(from *Euphorbia maculata*)

RN 194852-68-1 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[2,3-bis-O-(3,4,5-trihydroxybenzoyl)-.beta.-D-glucopyranosyl]oxy]-2-(3,4-dihydroxyphenyl)-5,7-dihydroxy- (9CI) (CA INDEX NAME)

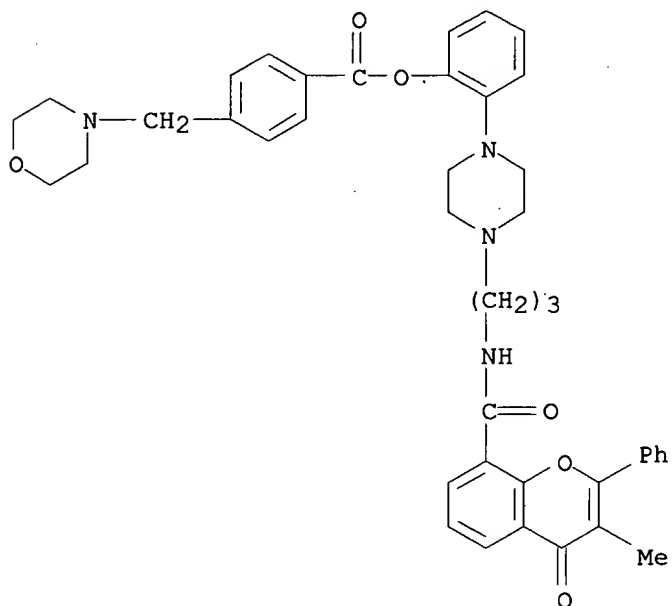
Absolute stereochemistry. Rotation (-).



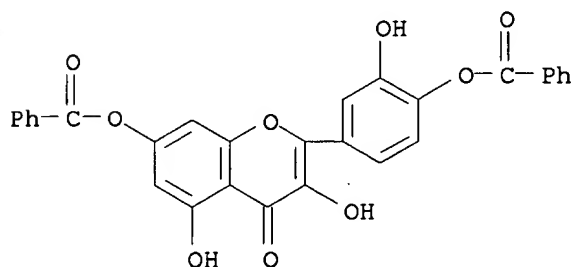
L14 ANSWER 56 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1997:169157 CAPLUS  
 DN 126:225315  
 TI Bicyclic heterocyclic derivatives having .alpha.1-adrenergic and 5HT1A serotonergic activities  
 IN Leonardi, Amedeo; Motta, Gianni; Riva, Carlo; Testa, Rodolfo  
 PA Recordati S.A., Chemical and Pharmaceutical Company, Switz.  
 SO U.S., 84 pp., Cont.-in-part of U.S. 5,474,994.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5605896	A	19970225	US 1994-299188	19940831
	US 5403842	A	19950404	US 1992-888775	19920526
	AU 9336296	A1	19930913	AU 1993-36296	19930223
	RO 112111	B3	19970530	RO 1994-1404	19930223
	PL 175556	B1	19990129	PL 1993-304889	19930223
	RU 2128656	C1	19990410	RU 1994-43324	19930223
	SK 280143	B6	19990910	SK 1994-1007	19930223
	ZA 9301278	A	19931118	ZA 1993-1278	19930224
	LT 3038	B	19940925	LT 1993-354	19930224
	CN 1079738	A	19931222	CN 1993-105852	19930526
	CN 1040434	B	19981028		
	US 5474994	A	19951212	US 1993-67861	19930526
	FI 9403876	A	19940823	FI 1994-3876	19940823
	NO 9403140	A	19940825	NO 1994-3140	19940825
PRAI	IT 1992-MI408	A	19920225		
	US 1992-888775	A2	19920526		
	US 1993-67861	A2	19930526		
	EP 1993-301264	A	19930222		
	WO 1993-EP420	A	19930223		
OS	MARPAT 126:225315				
AB	Bicyclic heterocyclic derivs., such as I [X = N, O, S; W = C(O), C(S), CH(OH), bond; R2 = H, optionally substituted alkyl, alkenyl, alkynyl, carbocycle, heterocycle; R3 = alkyl, hydroxyalkyl, Ph, OH, alkoxy, alkoxyalkyl; R6 = H, halogen, NO2, NH2, AcNH, mono-, dialkylamino, CN, OH, alkoxy, alkyl; Y = CO, CO2, CONH, CH(OH), CH:CH, CH:CHCO2, CH:CHCONH, CH2NH, CH2NHCO, CH2NHSO2, CH2O, CH2S, NH, NHCO, NHCONH, NHSO2, O, S, SO2NH, CONHO, CSNH, NHCO2, COS, CONH(CH2)m, m = 1-6; Z = N, A = (un)substituted Ph, pyrimidinyl, 1,4-benzodioxan-8-yl, benzopyran-8-yl, benzofuran-7-yl, dihydrobenzopyran-8-yl; Z = CH2N; Z = CH, A = one or two Ph, 4-FC6H4CO, 2-oxo-1-benzimidazolyl, (CH2)nOA, n = 0-2], and their pharmaceutically acceptable salts useful as .alpha.1-adrenergic and 5HT1A serotonergic agents for the treatment of hypertension, urethral and lower urinary tract contractions, and other disorders are described. Thus, benzopyran II was prepd. by heating 1-(2-methoxyphenyl)piperazine with benzopyran III at 180.degree. for 5 h. II had IC50 = 29 nM for .alpha.1-adrenergic receptor binding, IC50 = 9 nM for 5HT1A receptor binding, ED25 = 45 .mu.g/kg i.v. hypotensive effect and ED25 = 1.4 .mu.g/kg in Na-induced urethral contractility assays.				
IT	<b>188017-39-2P</b> RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of bicyclic heterocyclic derivs. having .alpha.1-adrenergic and 5HT1A serotonergic activities)				
RN	188017-39-2 CAPLUS				

CN Benzoic acid, 4-(4-morpholinylmethyl)-, 2-[4-[3-[[ (3-methyl-4-oxo-2-phenyl-4H-1-benzopyran-8-yl) carbonyl] amino] propyl]-1-piperazinyl]phenyl ester  
(9CI) (CA INDEX NAME)

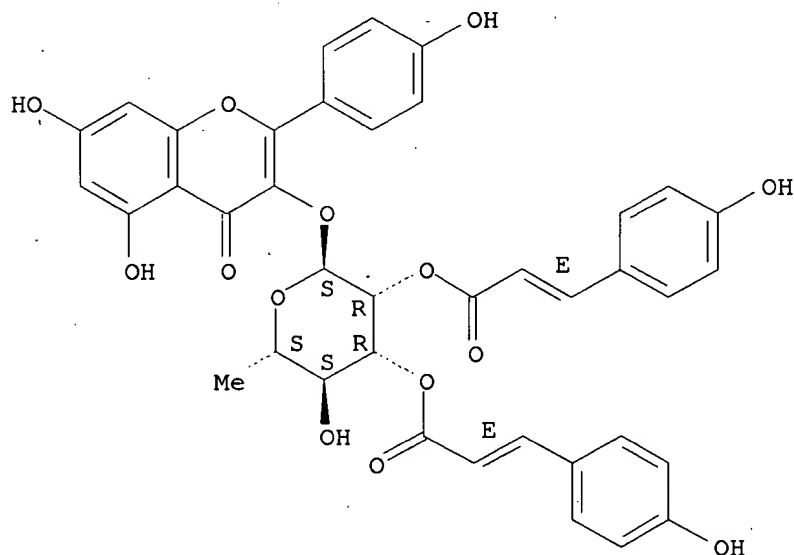


L14 ANSWER 57 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1996:759905 CAPLUS  
 DN 126:115554  
 TI Inhibition of tomato ringspot virus by flavonoids  
 AU Malhotra, B.; Onyilagha, J. C.; Bohm, B. A.; Towers, G. H. N.; James, D.; Harborne, J. B.; French, C. J.  
 CS Dep. of Botany, University of British Columbia, BC, V6T 1Z4, Can.  
 SO Phytochemistry (1996), 43(6), 1271-1276  
 CODEN: PYTCAS; ISSN: 0031-9422  
 PB Elsevier  
 DT Journal  
 LA English  
 AB When applied in a mixed inoculum with tomato ringspot nepovirus (TomRSV), flavonoids and related compds. inhibited infectivity in *Chenopodium quinoa*. Compds. that showed strong anti-viral activity were: quercetin 3-Me ether, quercetin 7-Me ether, quercetin 3,7,3',4'-tetramethyl ether, galangin 3-Me ether, morin, robinin, quercetin 3,7,4'-trimethyl ether, quercetin 7,4'-dimethyl ether, 7,4'-di-O-benzolquercetin, 7-hydroxy-3,4'-dimethyl flavone, 6,3'-dihydroxy-4'-Me aurone and fisetin 4'-Me ether. Quercetin applied at a concn. of 5 .mu.g ml<sup>-1</sup> caused 70% inhibition of local lesion development. When quercetin was applied to leaves prior to inoculation, there was only slight induced resistance to infection. Quercetin at 5 .mu.g ml<sup>-1</sup> did not affect virus multiplication in protoplasts prep'd. from cucumber cotyledons and transfected with viral-RNA. In meristematic tip cultures, quercetin reduced virus titer by up to 89% over a period of 36 wk whereas ribavirin caused a 25% redn. over the same period. It is proposed that flavonoids interfere with an early event in the virus life cycle resulting in decreased infectivity and titer in tissue culture.  
 IT **186098-03-3**, 7,4'-Di-O-benzolquercetin  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibition of tomato ringspot virus in *Chenopodium quinoa* by flavonoids)  
 RN 186098-03-3 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 7-(benzoyloxy)-2-[4-(benzoyloxy)-3-hydroxyphenyl]-3,5-dihydroxy- (9CI) (CA INDEX NAME)



L14 ANSWER 58 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1996:355539 CAPLUS  
 DN 125:30049  
 TI Three isocoumarins from *Coriandrum sativum*  
 AU Taniguchi, Masahiko; Yanai, Masayuki; Xiao, Yong Qing; Kido, Tadashi;  
 Baba, Kimiye  
 CS Osaka Univ. Pharm. Sci., Osaka, 580, Japan  
 SO Phytochemistry (1996), 42(3), 843-846  
 CODEN: PYTCAS; ISSN: 0031-9422  
 PB Elsevier  
 DT Journal  
 LA English  
 AB Three new isocoumarins, coriandrone C-E, were isolated from whole plants  
 of *Coriandrum sativum* and their structures established from spectral and  
 chem. evidence.  
 IT **133740-25-7 177795-31-2**  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified);  
 BIOL (Biological study); OCCU (Occurrence)  
 (from *Coriandrum sativum*)  
 RN 133740-25-7 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-2,3-bis-O-[(2E)-3-(4-hydroxyphenyl)-1-  
 oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-  
 hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



RN 177795-31-2 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-3-O-[3-(4-hydroxyphenyl)-1-oxo-2-  
 propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)-  
 , (E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



L14 ANSWER 59 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1996:197464 CAPLUS

DN 124:255757

TI A chemotaxonomic study on Euphorbiaceae in Korea

AU Ahn, Byung Tae; Lee, Seung Ho; Ro, Jai Seup; Lee, Kyong Soon

CS Coll. Pharm., Chungbuk Natl. Univ., Cheongju, 360-763, S. Korea

SO Natural Product Sciences (1995), 1(1), 86-98

CODEN: NPSCFB

PB Korean Society of Pharmacognosy

DT Journal

LA English

AB A chemosystematic study on euphorbiaceous plants in Korea has been performed by using phenolic constituents. The phenolic characteristics of subfamilies, genera and species were well distinguished from one another. Hydrolyzable tannins as constituents were considered to be a valuable taxonomic character in elucidating systematic relationships among the related taxa whereas flavonoids could be used in the classification of infraspecific taxa in this family. The phenolic fingerprints of each of the plants would be considered as a good tool to identify the species. In comparison with the morphol. classification system, the chem. relationship supported the subfamilial system of Webster (1975) and the further division of Euphorbia sensu lato by Hurusawa (1954).

IT 175032-95-8

RL: BOC (Biological occurrence); BSU (Biological study, unclassified);

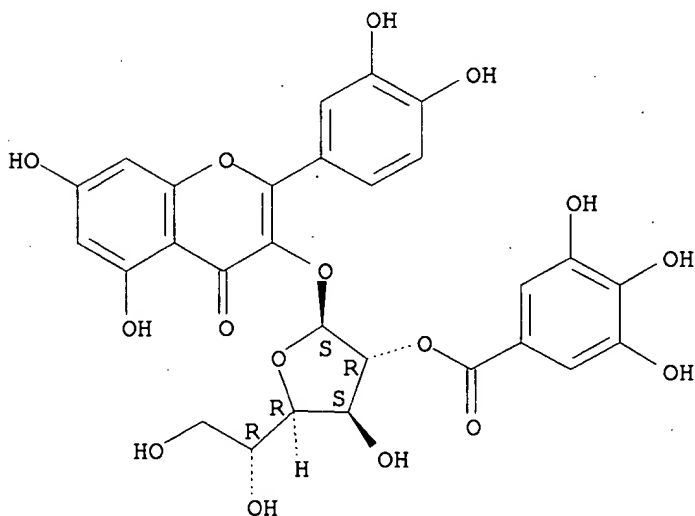
BIOL (Biological study); OCCU (Occurrence)

(taxonomy of Euphorbiaceae in Korea in relation to)

RN 175032-95-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-3-[[2-O-(3,4,5-trihydroxybenzoyl)-.beta.-D-glucofuranosyl]oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





L14 ANSWER 60 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1996:117680 CAPLUS

DN 124:260635

TI Synthesis and evaluation of 3',5'-di-tert-butyl-4'-hydroxyflavones as potential inhibitors of low density lipoprotein (LDL) oxidation

AU Lewin, Guy; Rolland, Yves; Privat, Sylvie; Breugnot, Christine; Lenaers, Albert; Vilaine, Jean Paul; Baltaze, Jean-Pierre; Poisson, Jacques

CS Fac. Pharmacie, Lab. Pharmacognosie, Caen, 14032, Fr.

SO Journal of Natural Products (1995), 58(12), 1840-7

CODEN: JNPRDF; ISSN: 0163-3864

PB American Society of Pharmacognosy

DT Journal

LA English

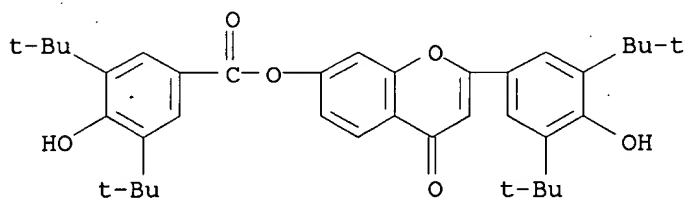
AB Novel flavones, e.g. I, which display structural analogies with the two well-known lipid peroxidn. inhibitors, probucol and butylated hydroxytoluene, were synthesized and studied in vitro for their ability to inhibit the copper sulfate or endothelial cell-induced lipid peroxidn. of human low-d. lipoprotein (LDL). Most of the flavones were active in the range of 0.1-1.mu.M.

IT 152816-48-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. of 3',5'-di-tert-butyl-4'-hydroxyflavones as potential inhibitors of low d. lipoprotein (LDL) oxidn.)

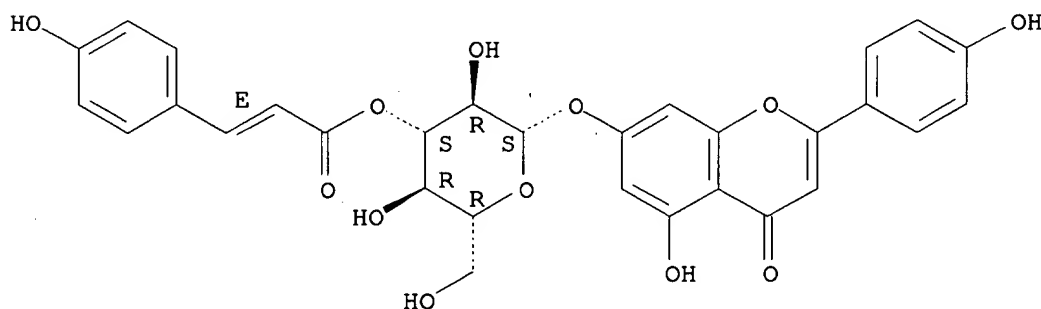
RN 152816-48-3 CAPLUS

CN Benzoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, 2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-4-oxo-4H-1-benzopyran-7-yl ester (9CI)  
(CA INDEX NAME)



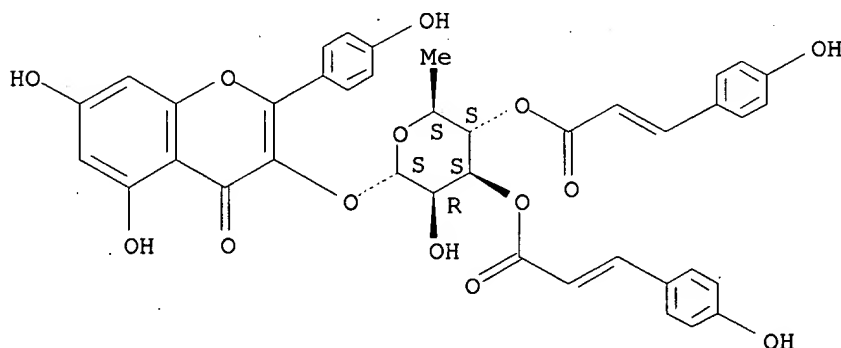
L14 ANSWER 61 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1995:931057 CAPLUS  
 DN 124:25602  
 TI Stachysetin, a diapigenin-7-glucoside-p,p'-dihydroxy-truxinate from *Stachys aegyptiaca*  
 AU El-Ansari, Mohamed A.; Nawwar, Mahmoud A.; Saleh, Nabil A. M.  
 CS Natl. Res. Center, Cairo, Egypt  
 SO Phytochemistry (1995), 40(5), 1543-8  
 CODEN: PYTCAS; ISSN: 0031-9422  
 PB Elsevier  
 DT Journal  
 LA English  
 AB Aerial parts of *Stachys aegyptiaca* contain the unique acylated flavonoid, diapigenin-7-O-(6"-trans,6"-cis-p,p'-dihydroxy-.mu.-truxinyl)glucoside, stachysetin, and the unknown, apigenin 7-O-(3"-p-coumaryl)glucoside. In addn., the known compds. apigenin 7-O-(6"-p-coumaryl)glucoside and naringenin were also identified. Structures were established by conventional methods of anal. and confirmed by <sup>1</sup>H, <sup>13</sup>C NMR and mass spectral anal. 2D-chem. shift correlation NMR was also used in the case of the new flavonoids.  
 IT **171367-93-4**  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)  
 (from *Stachys aegyptiaca*)  
 RN 171367-93-4 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5-hydroxy-2-(4-hydroxyphenyl)-7-[[3-O-[(E)-3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.beta.-D-glucopyranosyl]oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



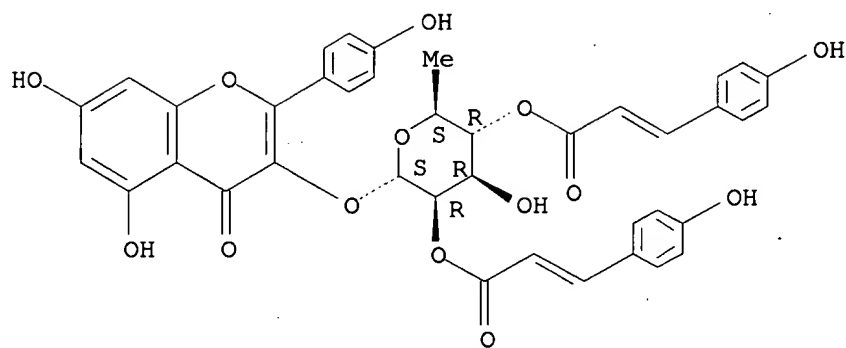
L14 ANSWER 62 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1995:711220 CAPLUS  
 DN 123:138776  
 TI Benzyloisoquinoline alkaloids and flavonols from *Ocotea vellosiana*  
 AU Garcez, Waldir S.  
 CS Inst. Quim., Univ. Sao Paulo, Sao Paulo, 05508-900, Brazil  
 SO Phytochemistry (1995), 39(4), 815-16  
 CODEN: PYTCAS; ISSN: 0031-9422  
 PB Elsevier  
 DT Journal  
 LA English  
 AB Unripe fruits of *Ocotea vellosiana* were found to contain 13 benzyloisoquinoline alkaloids, 4 flavonol glycosides, thalictoside, p-hydroxybenzoyl-rutinoside and asparagine, besides 3 novel p-coumaroyl derivs. of afzelin.  
 IT **166321-99-9 166582-05-4**  
 RL: ANT (Analyte); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)  
 (benzyloisoquinoline alkaloids and flavonols from *Ocotea vellosiana*)  
 RN 166321-99-9 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-3,4-bis-O-[3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry unknown.

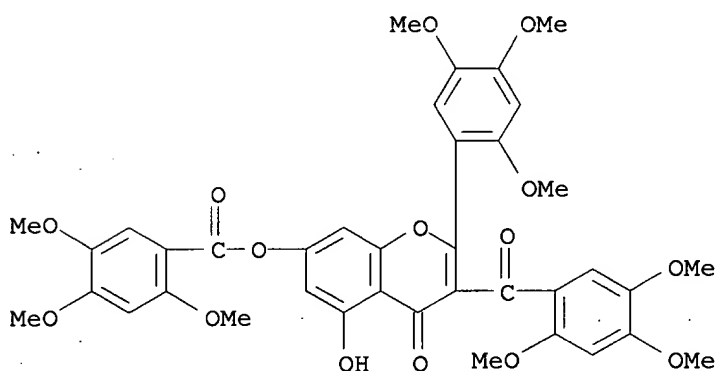


RN 166582-05-4 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-2,4-bis-O-[3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry unknown.



L14 ANSWER 63 OF 220 CAPLUS COPYRIGHT 2003 ACS  
AN 1995:593941 CAPLUS  
DN 123:32799  
TI Synthesis of naturally occurring 5-hydroxy-7,2',4',5'-tetramethoxyflavone and related compounds  
AU Anthoni, Uffe; Christophersen, Carsten; Nielsen, Per H.  
CS H. C. Oersted Institute, University Copenhagen, Copenhagen, DK-2100, Den.  
SO Acta Chemica Scandinavica (1995), 49(5), 357-60  
CODEN: ACHSE7; ISSN: 0904-213X  
PB Munksgaard  
DT Journal  
LA English  
AB The synthesis of the title compd. is described starting from 2,4,6-trihydroxyacetophenone and 2,4,5-trimethoxybenzoyl chloride. In addn., 5,7-dihydroxy-2',4',5'-trimethoxyflavone, 5-hydroxy-6-methyl-7,2',4',5'-tetramethoxyflavone, 5,7,2',4',5'-pentamethoxyflavone and 8-methyl-5,7,2',4',5'-pentamethoxyflavone were prepd. and characterized.  
IT **163936-29-6P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(synthesis of hydroxytetramethoxyflavone and related compds.)  
RN 163936-29-6 CAPLUS  
CN Benzoic acid, 2,4,5-trimethoxy-, 5-hydroxy-4-oxo-3-(2,4,5-trimethoxybenzoyl)-2-(2,4,5-trimethoxyphenyl)-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



L14 ANSWER 64 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1995:513297 CAPLUS

DN 122:310710

TI An antimicrobial kaempferol-diacyl-rhamnoside from *Pentachondra pumila*

AU Bloor, S. J.

CS Industrial Res. Ltd., Lower Hutt, N. Z.

SO Phytochemistry (1995), 38(4), 1033-5

CODEN: PYTCAS; ISSN: 0031-9422

PB Elsevier

DT Journal

LA English

AB An ext. of *Pentachondra pumila* yielded a new compd., kaempferol 3-(2,4-di-E-p-coumaroylrhamnoside) as the antimicrobially active component. Anal. of 13 other exts. of various New Zealand Epacridaceae species revealed this compd. to be a constituent of all but one.

IT **163434-73-9P**

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

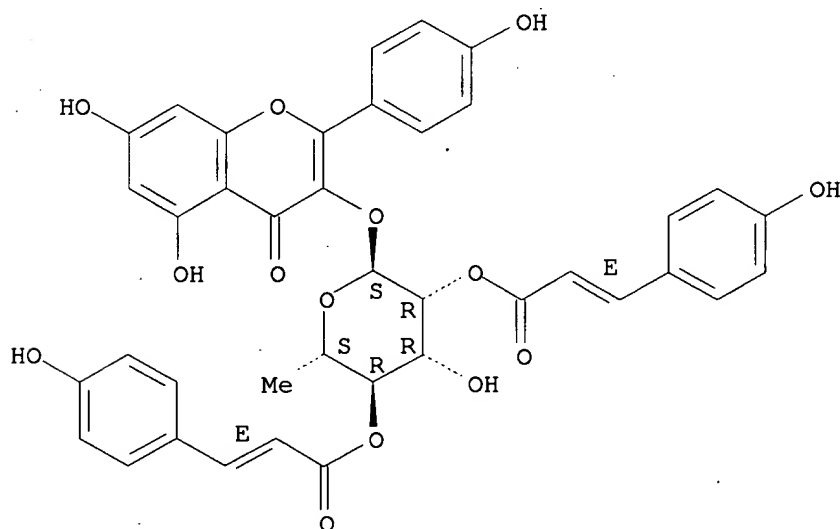
(antimicrobial kaempferol-diacyl-rhamnoside from *Pentachondra pumila*)

RN 163434-73-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[[6-deoxy-2,4-bis-O-[3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)-, (E,E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



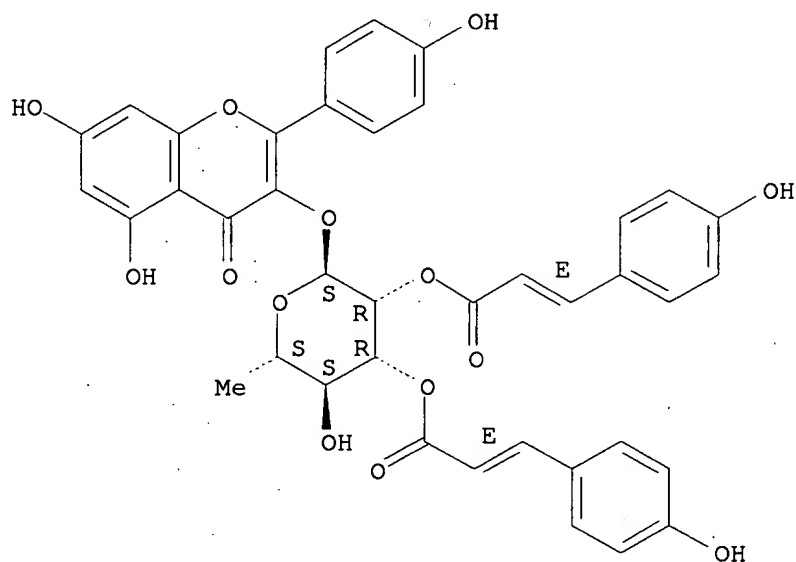
IT **133740-25-7**

RL: PRP (Properties)  
(prepn. of)

RN 133740-25-7 CAPLUS

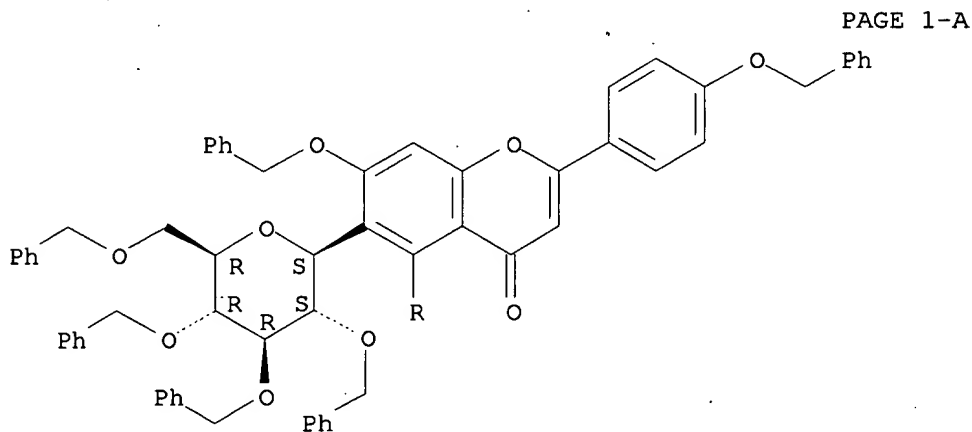
CN 4H-1-Benzopyran-4-one, 3-[[[6-deoxy-2,3-bis-O-[(2E)-3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.

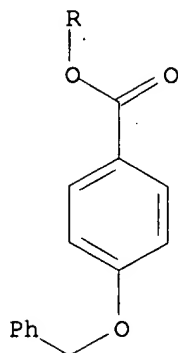


L14 ANSWER 65 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1995:425300 CAPLUS  
 DN 122:314958  
 TI Glycosyl imidates. 69. Synthesis of flavone C-glycosides vitexin, isovitexin, and isoembigenin  
 AU Mahling, Juergen-Andreas; Jung, Karl-Heinz; Schmidt, Richard R.  
 CS Fakultät Chemie, Universitaet Konstanz, Konstanz, D-78434, Germany  
 SO Liebigs Annalen (1995), (3), 461-6  
 CODEN: LANAEM; ISSN: 0947-3440  
 PB VCH  
 DT Journal  
 LA English  
 AB 2-Hydroxy-4,6-dimethoxyacetophenone was glycosylated with O-(2,3,4,6-tetra-O-benzyl-.alpha.-D-glucopyranosyl) trichloroacetimidate and trimethylsilyl triflate as promoter to yield directly the C-glycoside I. Construction of the flavone system by application of a Baker-Venkatarman-type rearrangement followed by deprotection yielded isoembigenin. Baker-Venkatarman rearrangement and intramol cyclocondensation were applied in prepn. of isovitexin and vitexin.  
 IT **163395-96-8P 163395-97-9P**  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (synthesis of flavone C-glycosides vitexin isovitexin and isoembigenin via Baker-Venkatarman rearrangement and intramol cyclocondensation)  
 RN 163395-96-8 CAPLUS  
 CN Benzoic acid, 4-(phenylmethoxy)-, 4-oxo-7-(phenylmethoxy)-2-[4-(phenylmethoxy)phenyl]-6-[2,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-glucopyranosyl]-4H-1-benzopyran-5-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



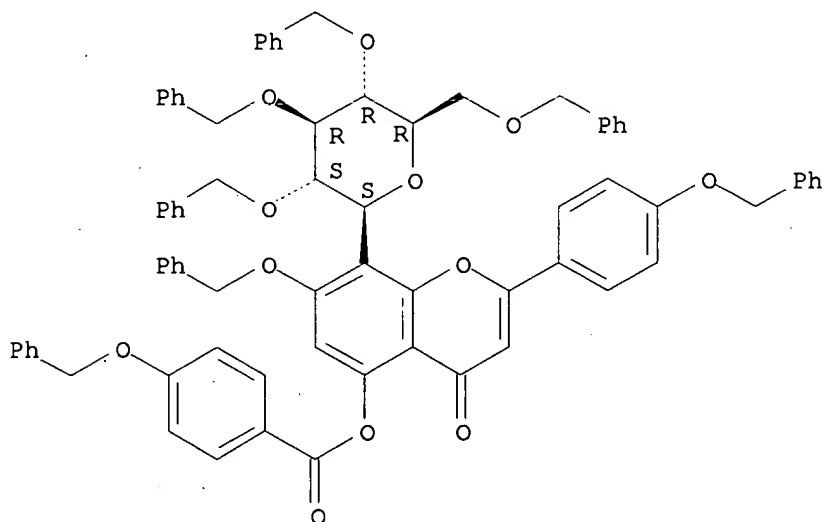




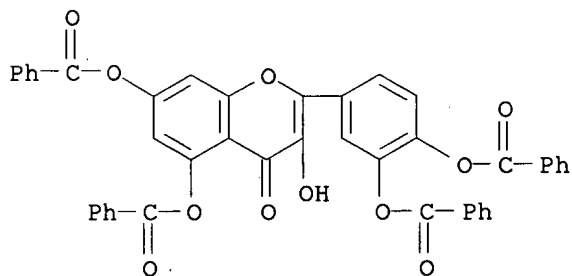
RN 163395-97-9 CAPLUS

CN Benzoic acid, 4-(phenylmethoxy)-, 4-oxo-7-(phenylmethoxy)-2-[4-(phenylmethoxy)phenyl]-8-[2,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-glucopyranosyl]-4H-1-benzopyran-5-yl ester (9CI) (CA INDEX NAME)

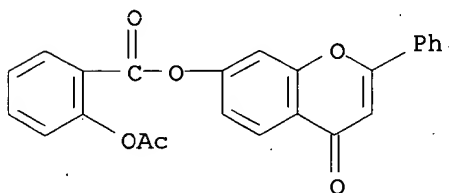
Absolute stereochemistry.



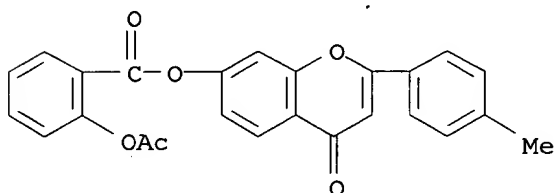
L14 ANSWER 66 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1995:327333 CAPLUS  
 DN 122:133558  
 TI Synthesis of hyperoside  
 AU Jiang, Z. L.; Zhu, Z. Y.; Wu, Y. H.; Wang, Z. Q.; Zhou, W. S.  
 CS Dep. Chemistry, Univ. Science and Technology China, Hefei, 230026, Peop.  
 Rep. China  
 SO Yaoxue Xuebao (1994), 29(11), 874-6  
 CODEN: YHHPAL; ISSN: 0513-4870  
 PB Chinese Academy of Medical Sciences, Institute of Materia Media  
 DT Journal  
 LA Chinese  
 AB A new and mild method to synthesize hyperoside from rutoside is described. Rutoside reacted with an excess of benzoyl chloride and the hydrolyzed in an acid medium to produce 5,7,3',4'-tetra-O-benzoylquercetin. This compd. was allowed to react with .alpha.-acetobromogalactose in the presence of silver oxide and then hydrolyzed to give hyperoside. The total yield is 6.8%.  
 IT **37706-95-9P**  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (synthesis of hyperoside)  
 RN 37706-95-9 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5,7-bis(benzoyloxy)-2-[3,4-bis(benzoyloxy)phenyl]-3-hydroxy- (9CI) (CA INDEX NAME)



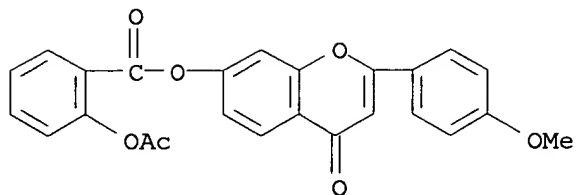
L14 ANSWER 67 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1995:208005 CAPLUS  
 DN 122:132909  
 TI Synthesis of 7-acetylsalicycloxyflavone derivatives  
 AU Yan, Bingshuang; Sun, Tiemin; Wu, Zhengqing  
 CS Dep. Pharm., Shenyang Pharmaceutical Univ., Shenyang, 110015, Peop. Rep. China  
 SO Zhongguo Yaowu Huaxue Zazhi (1994), 4(1), 36-40  
 CODEN: ZYHZEJ; ISSN: 1005-0108  
 DT Journal  
 LA Chinese  
 AB According to the mechanism of the inhibiting action of flavonoids on platelet aggregation and the structure-activity relation, derivs. I were designed and prepd. from 7-hydroxyflavones with different groups on the B-ring and acetylsalicylic acid. The study of the inhibiting action of those compds. on platelet aggregation is undergoing.  
 IT 160844-08-6P 160844-09-7P 160844-10-0P  
 160844-11-1P 160844-12-2P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (synthesis of 7-acetylsalicycloxyflavones)  
 RN 160844-08-6 CAPLUS  
 CN Benzoic acid, 2-(acetyloxy)-, 4-oxo-2-phenyl-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



RN 160844-09-7 CAPLUS  
 CN Benzoic acid, 2-(acetyloxy)-, 2-(4-methylphenyl)-4-oxo-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)

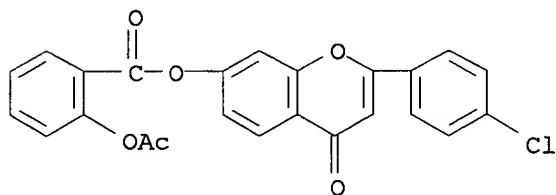


RN 160844-10-0 CAPLUS  
 CN Benzoic acid, 2-(acetyloxy)-, 2-(4-methoxyphenyl)-4-oxo-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



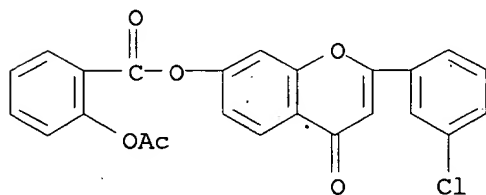
RN 160844-11-1 CAPLUS

CN Benzoic acid, 2-(acetyloxy)-, 2-(4-chlorophenyl)-4-oxo-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)

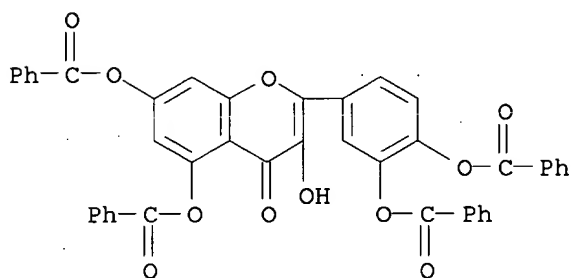


RN 160844-12-2 CAPLUS

CN Benzoic acid, 2-(acetyloxy)-, 2-(3-chlorophenyl)-4-oxo-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



L14 ANSWER 68 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1994:557977 CAPLUS  
 DN 121:157977  
 TI Semisynthesis of isoquercitrin  
 AU Wang, Xianrong; Wang, Hongping; Du, Anquan  
 CS Anhui Inst. Med. Sci., Hefei, 230061, Peop. Rep. China  
 SO Zhongguo Yaowu Huaxue Zazhi (1993), 3(3), 195-6, 200  
 CODEN: ZYHZEJ; ISSN: 1005-0108  
 DT Journal  
 LA Chinese  
 AB Benzoylation of rutin followed by acid hydrolysis gave  
 5,7,3',4'-tetra-O-benzoylquercetin, reaction of which with  
 1-bromo-2,3,4,6-tetra-O-acetyl-D-glucopyranose gave, after alk. hydrolysis  
 isoquercitrin.  
 IT **37706-95-9P**  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (prepn. and reaction of, with bromotetraacetylglucopyranose)  
 RN 37706-95-9 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5,7-bis(benzoyloxy)-2-[3,4-bis(benzoyloxy)phenyl]-3-  
 hydroxy- (9CI) (CA INDEX NAME)



L14 ANSWER 69 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1994:405085 CAPLUS

DN 121:5085

TI Bioactive compounds from the buds of *Platanus orientalis* and isolation of a new kaempferol glycoside

AU Mitrokovtsa, D.; Mitaku, S.; Demetzos, C.; Harvala, C.; Mentis, A.; Perez, S.; Kokkinopoulos, D.

CS Dep. Pharm., Univ. Campus Zografou, Athens, GR-157 71, Greece

SO *Planta Medica* (1993), 59(6), 517-20

CODEN: PLMEAA; ISSN: 0032-0943

DT Journal

LA English

AB A new compd. kaempferol 3-O-.alpha.-L-(2''-E-p-coumaroyl)-rhamnopyranoside (I), as well as the known flavonoids, kaempferol 3-O-.beta.-D-(6''-E-p-coumaroyl)-glucopyranoside, kaempferol 3-O-.alpha.-L-(2'',3''-di-E-p-coumaroyl)-rhamnopyranoside, and caffeic acid were obtained from the methanolic ext. of *Platanus orientalis* L. buds. All the compds. were isolated by column chromatog. and identified using 1H-NMR, 2D-1H-NMR (COSY), 1H-13C-NMR, and CIDMS techniques. Cytotoxic and antimicrobial studies were carried out in vitro against human cell lines and against Gram-pos. and Gram-neg. organisms.

IT 133740-25-7

RL: BIOL (Biological study)

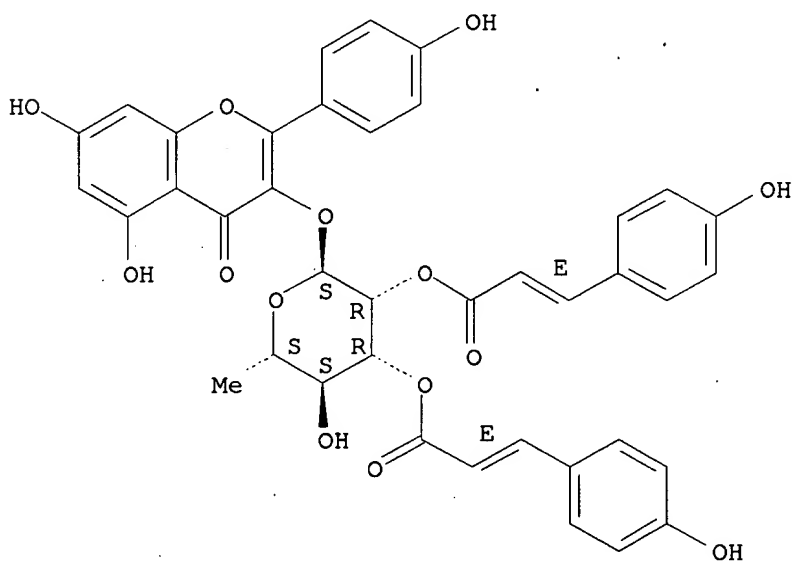
(from *Platanus orientalis* buds, bioactivity of)

RN 133740-25-7 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-2,3-bis-O-[(2E)-3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry:

Double bond geometry as shown.



L14 ANSWER 70 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1994:322985 CAPLUS

DN 120:322985

TI Synthesis of flavonols analogous to quercetin employing the Baker-Venkataraman reaction

AU Mani, Rama I.; Powers, Parris F.; Drummond, Landson

CS Dep. Chem., Tennessee State Univ., Nashville, TN, 37203, USA

SO Journal of the Tennessee Academy of Science (1993), 68(3), 83-6

CODEN: JTASAG; ISSN: 0040-313X

DT Journal

LA English

AB .omega.-Methoxy-3-methylphloracetophenone (I) was prepd. by the condensation of 2-methylphloroglucinol with methoxyacetic acid-boron trifluoride complex. Using a modification of the Baker-Venkataraman reaction, the treatment of I with 3,4-dimethoxybenzoyl chloride in the presence of anhyd. potassium carbonate in boiling acetone gave 6-methyl-5,7-dihydroxy-3,3',4'-trimethoxyflavone (II) which on demethylation with aluminum bromide in benzene gave pinoquercetin. Treatment of I with 3,4,5-trimethoxybenzoyl chloride under similar conditions gave 6-methyl-5,7-dihydroxy-3,3',4',5'-tetramethoxyflavone (III) which on demethylation with aluminum bromide in benzene gave pinomyricetin. II and III are of interest because of the presence of the 3-methoxy and 5-hydroxy group in the flavone skeleton. Such compds. have been shown in the past to have potent antiviral activity against rhinovirus infection.

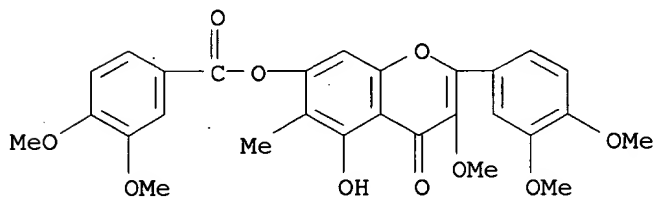
IT 155334-77-3P 155334-78-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction of, in prepn. of flavanols)

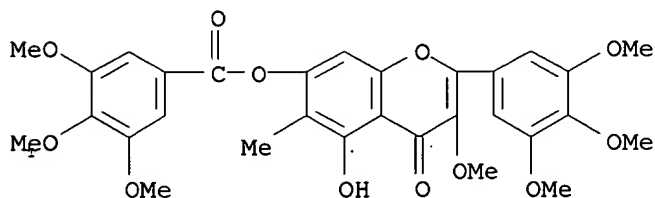
RN 155334-77-3 CAPLUS

CN Benzoic acid, 3,4-dimethoxy-, 2-(3,4-dimethoxyphenyl)-5-hydroxy-3-methoxy-6-methyl-4-oxo-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



RN 155334-78-4 CAPLUS

CN Benzoic acid, 3,4,5-trimethoxy-, 5-hydroxy-3-methoxy-6-methyl-4-oxo-2-(3,4,5-trimethoxyphenyl)-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



L14 ANSWER 71 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1994:270980 CAPLUS

DN 120:270980

TI The influence of light on the yields in Koenigs-Knorr reaction of glucosidation in the synthesis of some natural flavone-O-glucosides

AU Milovanovic, Mirjana; Stefanovic, Milutin

CS Fac. Agric., Univ. Belgrade, Zemun, YU-11080, Yugoslavia

SO Journal of the Serbian Chemical Society (1993), 58(6), 397-403

CODEN: JSCSEN; ISSN: 0352-5139

DT Journal

LA English

OS CASREACT 120:270980

AB The synthesis of some natural flavone-O-glucosides was realized starting from the aglycons, the flavone luteolin and quercetin. The glucosidation step was performed, according to the Koenigs-Knorr method, with acetobromoglucose in the presence or absence of light. Investigation of the compn. or the reaction products revealed that the yields of flavone-O-glucosides are influenced by light and are generally higher in some cases up from 16% to 30%, than reported in literature. The synthesis was carried out using benzoyl-benzyl flavone intermediates, glucosidation and finally, hydrogenolysis of the protected groups with Pd/C as catalyst. By this procedure the following natural flavone-O-glucosides were obtained: luteolin-7-O-.beta.-D-glucoside, quercetin-5-O-.beta.-D-glucoside, quercetin-3-O-.beta.-D-glucoside and quercetin-3'-O-.beta.-D-glucoside.

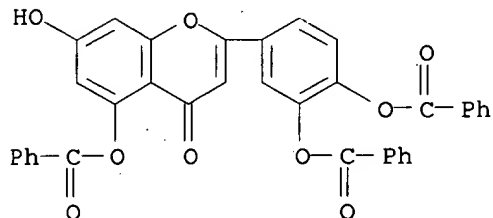
IT **34293-65-7P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and glycosidation of, with acetobromoglucose)

RN 34293-65-7 CAPLUS

CN 4H-1-Benzopyran-4-one, 5-(benzoyloxy)-2-[3,4-bis(benzoyloxy)phenyl]-7-hydroxy- (9CI) (CA INDEX NAME)



IT **34293-64-6P**

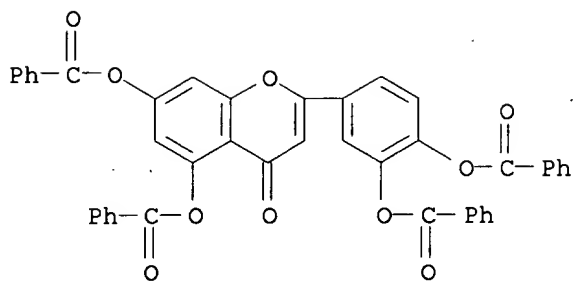
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and regioselective debenzoylation of)

RN 34293-64-6 CAPLUS

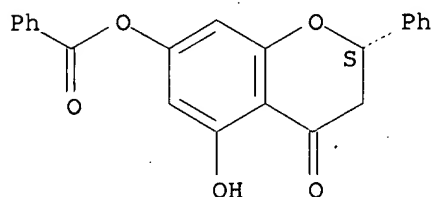
CN 4H-1-Benzopyran-4-one, 5,7-bis(benzoyloxy)-2-[3,4-bis(benzoyloxy)phenyl]- (9CI) (CA INDEX NAME)





L14 ANSWER 72 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1994:187196 CAPLUS  
 DN 120:187196  
 TI Flavanones of Lophopappus tarapacanus and triterpenoids of Pachylaena atriplicifolia  
 AU Hoeneisen, M.; Silva, M.; Jakupovic, J.; Papastergiou, F.; Peter, M. G.  
 CS Univ. Concepcion, Concepcion, Chile  
 SO Phytochemistry (1993), 34(6), 1653  
 CODEN: PYTCAS; ISSN: 0031-9422  
 DT Journal  
 LA English  
 AB The aerial parts of Lophopappus tarapacanus gave a new flavanone and pinocembrin; Pachylaena atriplicifolia gave .alpha.- and .beta.-amyrin, lupeyl acetate and sitosterol.  
 IT **153653-38-4**  
 RL: PROC (Process)  
 (isolation of, from Lophopappus tarapacanus)  
 RN 153653-38-4 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 7-(benzoyloxy)-2,3-dihydro-5-hydroxy-2-phenyl-,  
 (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 73 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1994:134139 CAPLUS

DN 120:134139

TI Preparation of 3',5'-di-tert-butyl-4'-hydroxyflavones and their antioxidant and antivasoconstrictive activities

IN Rolland, Yves; Lewin, Guy; Vilaine, Jean Paul; Lenaers, Albert; Thollon, Catherine

PA ADIR et Co., Fr.

SO Eur. Pat. Appl., 18.pp.

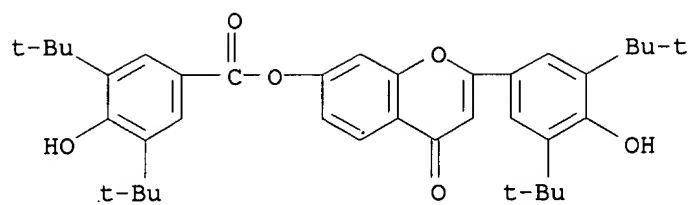
CODEN: EPXXDW

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 564350	A1	19931006	EP 1993-400811	19930330
	EP 564350	B1	19970514		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	FR 2689127	A1	19931001	FR 1992-3861	19920331
	US 5280024	A	19940118	US 1993-36814	19930325
	CA 2092961	AA	19931001	CA 1993-2092961	19930330
	AU 9335591	A1	19931007	AU 1993-35591	19930330
	AU 655106	B2	19941201		
	JP 06025212	A2	19940201	JP 1993-72457	19930330
	JP 07119221	B4	19951220		
	AT 153022	E	19970515	AT 1993-400811	19930330
	ES 2104090	T3	19971001	ES 1993-400811	19930330
	ZA 9302312	A	19931018	ZA 1993-2312	19930331
	US 5457103	A	19951010	US 1993-108333	19930818
PRAI	FR 1992-3861		19920331		
	US 1993-36814		19930325		
OS	MARPAT 120:134139				
AB	Title compds. I [R = H, OR' where R' = H, C1-10 alkyl (optionally substituted by (substituted) Ph, mono- or bicyclic arom. heterocyclyl, carboxy, (C1-5)alkoxycarbonyl, various aminocarbonyls or amines), acyl, tosyl], their stereoisomers and salts, useful as antioxidants and vasorelaxants, are prepd. Thus, condensation of 3,5-di-tert-butyl-4-hydroxybenzoic acid (prepn. given) with phosphorane II in pyridine at 100.degree. gave 3',5'-di-tert-butyl-7,4'-dihydroxyflavone, i.e. I (R = OH), in 29% yield. Compd. I (R = OCH2CO2Et) (prepd. in 66% yield) exhibited an IC50 = 2.6 .mu.M in vascular relaxation of prostaglandin F2.alpha.-contracted left coronary artery of Yucatan miniature pig. Compd. I (R = OCMe2CO2Et) inhibited the oxidn. of low-d. lipoproteins (LDL) by rabbit aorta endothelial cells with IC50 = 0.5 .mu.M, whereas vitamin E exhibited an IC50 = 4 .mu.M. Pharmaceutical compns. of I are claimed (no data).				
IT	<b>152816-48-3P</b>				
	RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of, as antioxidant and vasorelaxant)				
RN	152816-48-3 CAPLUS				
CN	Benzoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, 2-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-4-oxo-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)				



L14 ANSWER 74 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1994:100167 CAPLUS

DN 120:100167

TI Inhibition of protein kinase C by scutellarein and its analogs

AU Xu, Guang; Zhang, Liping; Shen, Huifen; Hu, Changqi

CS Sch. Basic Med. Sci., Shanghai Med. Univ., Shanghai, Peop. Rep. China

SO Shanghai Yike Daxue Xuebao (1993), 20(3), 187-91

CODEN: SYDXEE; ISSN: 0257-8131

DT Journal

LA Chinese

AB The effect of 19 flavonoids, representing several different chem. classes, on the activity of partially purified rat brain protein kinase C (PKC) was studied. Most of the flavonoids were isolated from the Chinese herb drug Huang-Qin (*Scutellaria baicalensis*) and Deng-Zhan-Hua (*Erigeron breviscapus*). Scutellarin and baicalein inhibited PKC with IC50 values of 48 and 76  $\mu\text{mol/L}$  resp. Inhibition was obsd. at all concns. of  $\text{Ca}^{2+}$  between  $10^{-2}$  and  $10^{-7}$  mol/L. Inhibition of PKC activity could not be reversed by increasing the concn. of diacylglycerol or the substrate histone. Kinetic analyses revealed that the inhibition is noncompetitive.

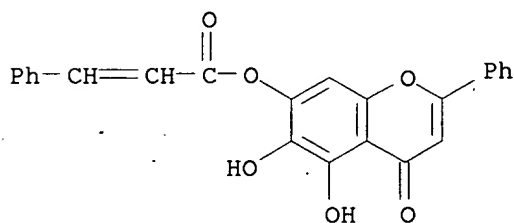
IT **152389-78-1**, Baicalein-7-cinnamic ester

RL: BIOL (Biological study)

(protein kinase C inhibition by, structure relation to)

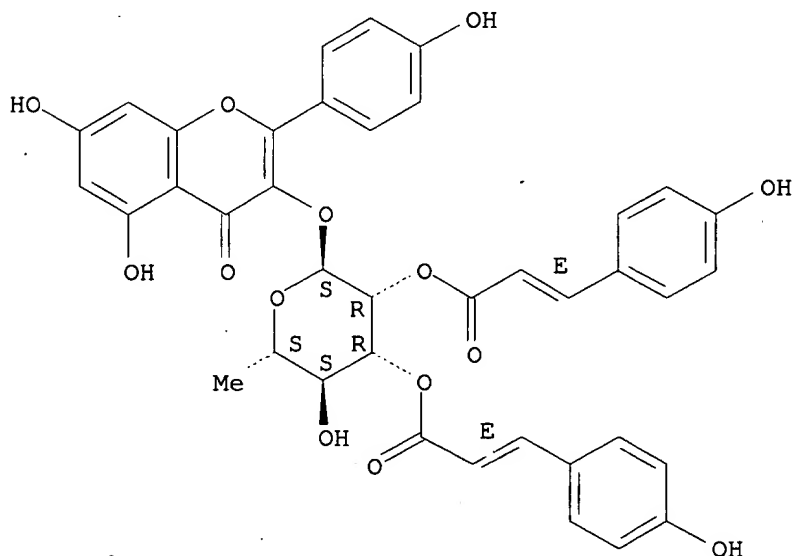
RN 152389-78-1 CAPLUS

CN 2-Propenoic acid, 3-phenyl-, 5,6-dihydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)

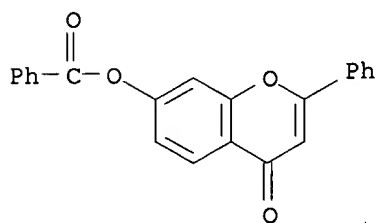


L14 ANSWER 75 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1993:666525 CAPLUS  
 DN 119:266525  
 TI Polyphenols from *Platanus acerifolia* buds. 8. Further acylated kaempferol rhamnosides from *Platanus acerifolia* buds  
 AU Kaouadji, Mourad; Morand, Jean Marc; Garcia, Julian  
 CS Lab. Pharmacogn., Univ. Joseph Fourier-Grenoble I, La Tronche, F-38706, Fr.  
 SO Journal of Natural Products (1993), 56(9), 1618-21  
 CODEN: JNPRDF; ISSN: 0163-3864  
 DT Journal  
 LA English  
 AB The EtOAc ext. of fresh *P. acerifolia* buds afforded a mixt. of 2 new acylated flavonol monoglycosides. Sepns. were achieved by column chromatog. on polyamide and Sephadex LH-20 as well as by centrifugal TLC on Si gel and reversed-phase HPLC. Structural elucidations were performed by UV, <sup>1</sup>H NMR, and MS. The two new compds. were identified as kaempferol 3-(2-p-coumaroyl-.alpha.-L-rhamnopyranoside) in the E and the Z form, resp. This is the 1st report of Z- and E-2''-cinnamoyl flavonoid rhamnosides.  
 IT **133740-25-7**, Platanoside  
 RL: BIOL (Biological study)  
 (from *Platanus acerifolia* buds)  
 RN 133740-25-7 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-[[[6-deoxy-2,3-bis-O-[(2E)-3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



L14 ANSWER 76 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1993:185661 CAPLUS  
 DN 118:185661  
 TI Daidzin: A potent, selective inhibitor of human mitochondrial aldehyde dehydrogenase  
 AU Keung, Wing Ming; Vallee, Bert L.  
 CS Cent. Biochem. Biophys. Sci. Med.; Harvard Med. Sch., Boston, MA, 02115, USA  
 SO Proceedings of the National Academy of Sciences of the United States of America (1993), 90(4), 1247-51  
 CODEN: PNASA6; ISSN: 0027-8424  
 DT Journal  
 LA English  
 AB Human mitochondrial aldehyde dehydrogenase (ALDH-I) is potently, reversibly, and selectively inhibited by an isoflavone isolated from *Radix puerariae* and identified as daidzin, the 7-glucoside of 4',7-dihydroxyisoflavone. Kinetic anal. with formaldehyde as substrate reveals that daidzin inhibits ALDH-I competitively with respect to formaldehyde with a  $K_i$  of 40 nM, and uncompetitively with respect to the coenzyme NAD<sup>+</sup>. The human cytosolic aldehyde dehydrogenase isoenzyme (ALDH-II) is nearly 3 orders of magnitude less sensitive to daidzin inhibition. Daidzin does not inhibit human class I, II, or III alc. dehydrogenases, nor does it have any significant effect on biol. systems that are known to be affected by other isoflavones. Among more than 40 structurally related compds. surveyed, 12 inhibit ALDH-I, but only prunetin and 5-hydroxydaidzin (genistin) combine high selectivity and potency, although they are 7- to 15-fold less potent than daidzin. Structure-function relationships have established a basis for the design and synthesis of addnl. ALDH inhibitors that could both be yet more potent and specific. Perhaps the ALDH-I inhibitors could be useful in the treatment of alcoholism.  
 IT **39103-37-2**  
 RL: BIOL (Biological study)  
 (aldehyde dehydrogenase of humans-inhibiting activity of, structure in relation to)  
 RN 39103-37-2 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 7-(benzoyloxy)-2-phenyl- (9CI) (CA INDEX NAME)



L14 ANSWER 77 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1993:59455 CAPLUS

DN 118:59455

TI Synthesis and biological evaluation of a series of flavones designed as inhibitors of protein tyrosine kinases

AU Cunningham, Bernadette D. M.; Threadgill, Michael D.; Groundwater, Paul W.; Dale, Ian L.; Hickman, John A.

CS Oncogene Sci. Inc., Uniondale, NY, 11553, USA

SO Anti-Cancer Drug Design (1992), 7(5), 365-84

CODEN: ACDDEA; ISSN: 0266-9536

DT Journal

LA English

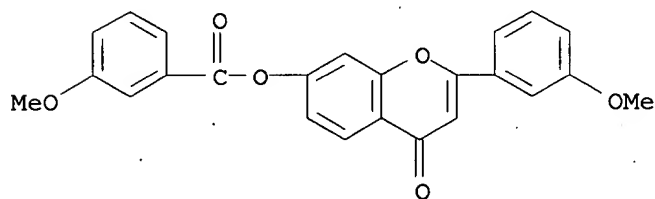
AB A series of flavones has been prepd., which are variously substituted in the 3,3',4',5 and 7 positions with halo-, alkoxy-, nitro-, amino-, hydroxy-, acyloxy- and azido-groups, for evaluation of their cytotoxicity to ANN-1 cells (3T3 murine fibroblasts transformed with the Abelson murine leukemia virus) which contain a tyrosine kinase. This cytotoxicity was compared to that for their non-transformed 3T3 counterparts. 3'-Amino-4'-methoxyflavone was the most cytotoxic compd. (IC50 = 1.6 .mu.M) and was less inhibitory to the non-transformed parent 3T3 cell line (IC50 = 8 .mu.M). The compd. was inactive at 50 .mu.M in assays of the inhibition of the cell-assocd. Abelson protein tyrosine kinase but inhibited an epidermal growth factor (EGF) protein tyrosine kinase by 42% at 50 .mu.M. Quercetin was the most potent inhibitor of the Abelson protein tyrosine kinase but showed no selective inhibition of the growth of ANN-1 cells compared to the parent 3T3 cell line. Different structure-activity relationships were obsd. between the results of the cytotoxicity assays and inhibition of protein tyrosine kinases. Inhibitors of the Abelson protein tyrosine kinase which were competitive with respect to ATP showed different potencies for inhibition of the epidermal growth factor receptor kinase.

IT **145370-41-8P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. and ester hydrolysis of)

RN 145370-41-8 CAPLUS

CN Benzoic acid, 3-methoxy-, 2-(3-methoxyphenyl)-4-oxo-4H-1-benzopyran-7-yl ester (9CI) (CA INDEX NAME)



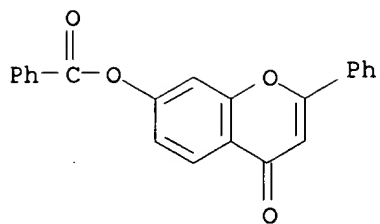
IT **39103-37-2P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

RN 39103-37-2 CAPLUS

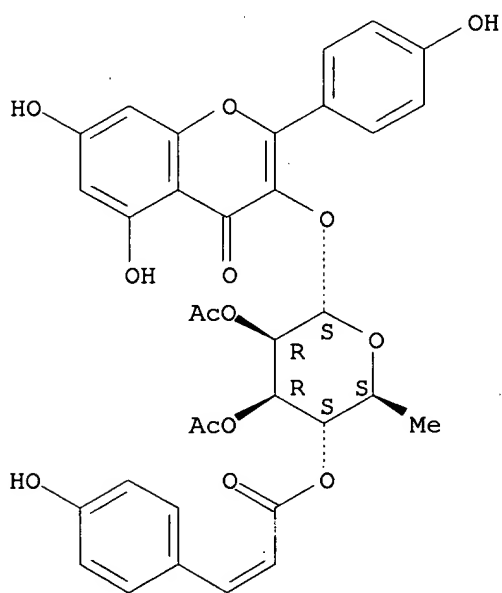
CN 4H-1-Benzopyran-4-one, 7-(benzoyloxy)-2-phenyl- (9CI) (CA INDEX NAME)





L14 ANSWER 78 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1993:56123 CAPLUS  
 DN 118:56123  
 TI Antifungal activity of a flavonol glycoside from the leaves of bog myrtle (Myrica gale)  
 AU Carlton, Robert R.; Deans, Stanley G.; Gray, Alexander I.; Waterman, Peter G.  
 CS Dep. Pharm., Univ. Strathclyde, Glasgow, G1 1XW, UK  
 SO Chemoecology (1991), 2, 69-71  
 CODEN: CHMOE9; ISSN: 0937-7409  
 DT Journal  
 LA English  
 AB The antifungal activity of kaempferol-3-(2,3-diacetoxy-4-p-coumaroyl)rhamnoside, a new flavonol glycoside isolated from the leaves of Myrica gale, was investigated. The flavonoid had varying inhibitory activity against five species of fungi isolated from the leaves of M. gale in the field.  
 IT **128941-61-7**  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (from Myrica gale, antifungal activity of)  
 RN 128941-61-7 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-[[2,3-di-O-acetyl-6-deoxy-4-O-[3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry unknown.



L14 ANSWER 79 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1992:528155 CAPLUS

DN 117:128155

TI Flavonols from *Myrica esculenta* bark

AU Sun, Dawang; Zhao, Zuchun; Foo, Lai Yeap; Wong, Herbert

CS Nanjing For. Univ., Nanjing, 210037, Peop. Rep. China

SO Linchan Huaxue Yu Gongye (1991), 11(4), 251-7

CODEN: LHYGD7; ISSN: 0253-2417

DT Journal

LA English

AB Two novel galloylated flavonol glycosides, namely: myricetin 3-O-(3''-O-galloyl)-.alpha.-L-rhamnopyranoside and myricetin 3-O-(2''-O-galloyl)-.beta.-D-galactopyranoside, were isolated from the bark of *M. esculenta*, accompanied by myricetin, myricitrin and myricetin 3-O-(2''-O-galloyl)-.alpha.-L-rhamnopyranoside. Their chem. structures have been elucidated by partial and total hydrolysis, comparison with model substances, FAB-MS, 1H-1H COSY and 13C NMR.

IT 143202-36-2

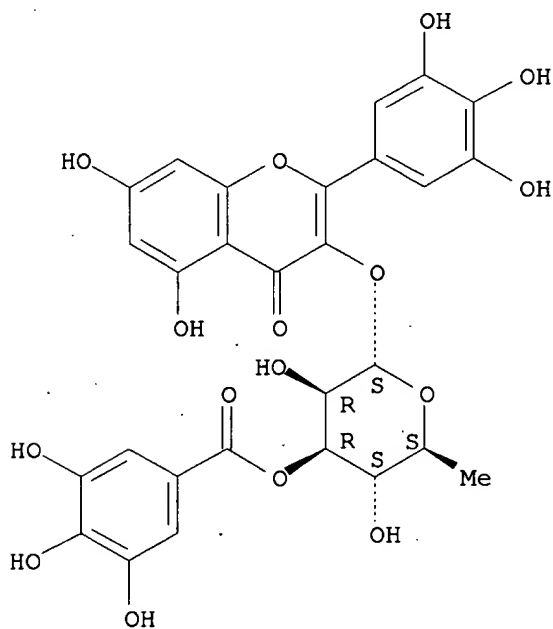
RL: BIOL (Biological study)

(from *Myrica esculenta* bark)

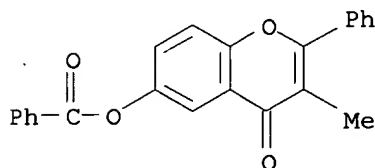
RN 143202-36-2 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-3-O-(3,4,5-trihydroxybenzoyl)-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(3,4,5-trihydroxyphenyl)- (9CI) (CA INDEX NAME)

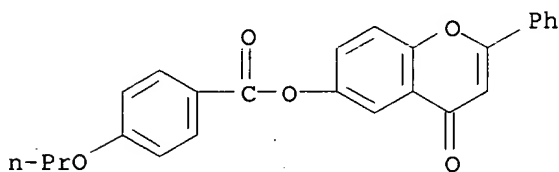
Absolute stereochemistry.



L14 ANSWER 80 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1992:214192 CAPLUS  
 DN 116:214192  
 TI (Aminoalkoxy)chromones. Selective .sigma. receptor ligands  
 AU Erickson, Ronald H.; Natalie, Kenneth J., Jr.; Bock, William; Lu, Zhijian;  
 Farzin, Farzaneh; Sherrill, Ronald G.; Meloni, David J.; Patch, Raymond  
 J.; Rzesotarski, Wacław J.; et al.  
 CS Nova Pharm. Corp., Baltimore, MD, 21224, USA  
 SO Journal of Medicinal Chemistry (1992), 35(9), 1526-35  
 CODEN: JMCMAR; ISSN: 0022-2623  
 DT Journal  
 LA English  
 AB A series of (aminoalkoxy)chromones has been prepd., members of which bind  
 potently at the .sigma. binding site and bind weakly at the dopamine D2  
 receptor and 33 other receptors, second messenger systems, and ion  
 channels. At the .sigma. receptor, the preferred position of attachment  
 for the aminoalkoxy side chain to the chromone ring followed the rank  
 order: 7-position > 5-position > 6-position. Chromones that contained a  
 2-substituent that was not coplanar with the chromone ring system showed  
 improved binding over compds. with coplanar substituents. The most potent  
 compd. at the .sigma. site was aminoalkoxychromone I. The most selective  
 compd. examd. was aminoalkoxychromone II (R = cyclopentyl, R1 = H).  
 Aminoalkoxychromone II (R = Ph, R1 = Me) was systemically effective in two  
 behavioral models predictive of antipsychotic compds. and systemically  
 active in animal models of ischemia.  
 IT **140439-49-2P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of)  
 RN 140439-49-2 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 6-(benzoyloxy)-3-methyl-2-phenyl- (9CI) (CA INDEX  
 NAME)



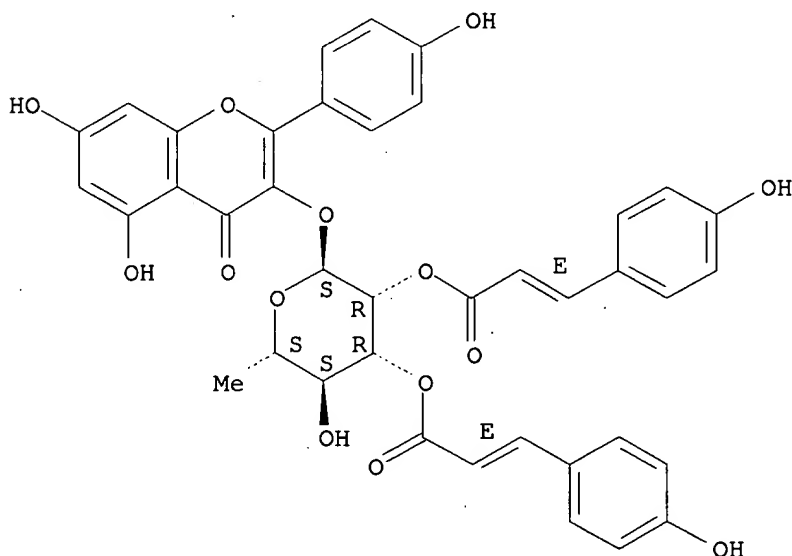
L14 ANSWER 81 OF 220 CAPLUS COPYRIGHT 2003 ACS  
AN 1991:419127 CAPLUS  
DN 115:19127  
TI Structure of 6-(4-n-propoxybenzoyloxy)flavone  
AU Kawai, Takahiro; Yoshimura, Yukio; Shimaoka, Kohji; Nakamura, Naotake;  
Yano, Shinichi  
CS Fac. Sci. Eng., Ritsumeikan Univ., Kyoto, 603, Japan  
SO Acta Crystallographica, Section C: Crystal Structure Communications  
(1991), C47(5), 1120-2  
CODEN: ACSCEE; ISSN: 0108-2701  
DT Journal  
LA English  
AB The title compd. is triclinic, space group P.hivin.1, with a 16.306(11), b  
14.830(12), c 13.918(20) .ANG., .alpha. 107.24(9), .beta. 99.80(9), and  
.gamma. 72.33(6).degree.; d.(calcd). = 1.306 for Z = 2 (3 mols./Z). Final  
R = 0.076 (RW = 0.047) for 10683 reflections. At. coordinates are given.  
There are no unusual bond distances or angles. The flavone skeleton is  
twisted with respect to the 4-propoxybenzoyloxy group in the mol.  
IT **123521-78-8**  
RL: PRP (Properties)  
(crystal structure of)  
RN 123521-78-8 CAPLUS  
CN Benzoic acid, 4-propoxy-, 4-oxo-2-phenyl-4H-1-benzopyran-6-yl ester (9CI)  
(CA INDEX NAME)



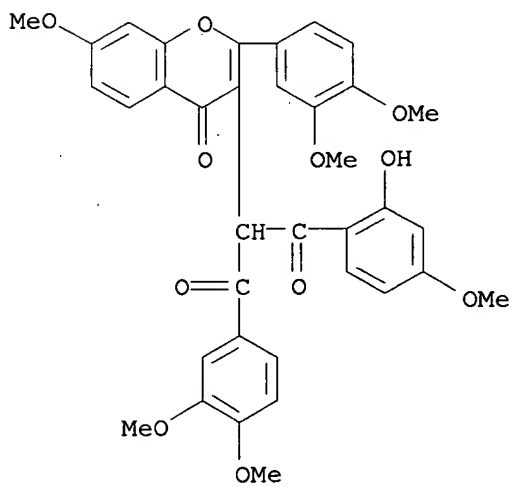
L14 ANSWER 82 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1991:203473 CAPLUS  
 DN 114:203473  
 TI Acylated and non-acylated kaempferol monoglycosides from *Platanus acerifolia* buds  
 AU Kaouadji, Mourad  
 CS Lab. Pharmacogn., Univ. Joseph Fourier-Grenoble I, La Tronche, F-38706, Fr.  
 SO Phytochemistry (1990), 29(7), 2295-7  
 CODEN: PYTCAS; ISSN: 0031-9422  
 DT Journal  
 LA English  
 AB A methanolic ext. of *P. acerifolia* buds yielded the known components kaempferol 3-rhamnoside, 7-rhamnoside, and 3-glucoside. The Et acetate ext. afforded tiliroside and a new glycoside, kaempferol 3-(2,3-di-E-p-coumaroyl-.alpha.-L-rhamnopyranoside) named platanoside (I). Sépns. were made by column chromatog., centrifugal TLC, and HPLC. Structure elucidation was achieved by UV, 1H- and 13C-NMR, and mass spectra. This is the first report of a flavonoid 2'',3''-dicinnamoylglycoside.  
 IT **133740-25-7**, Platanoside  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)  
 (of *Platanus acerifolia* buds, isolation and structure detn. of)  
 RN 133740-25-7 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-2,3-bis-O-[(2E)-3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

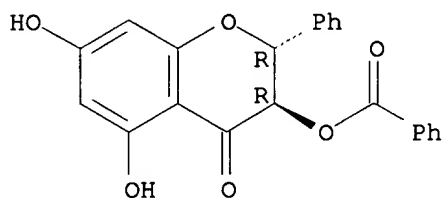


L14 ANSWER 83 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1991:101420 CAPLUS  
 DN 114:101420  
 TI Attempted synthesis of 3,3'-linked biflavonoids  
 AU Khan, M. S. Y.; Khan, M. H.; Javed, K.  
 CS Dep. Med. Chem., Jamia Hamdard, New Delhi, 110 062, India  
 SO Indian Journal of Chemistry, Section B: Organic Chemistry Including  
 Medicinal Chemistry (1990), 29B(12), 1101-6  
 CODEN: IJSBDB; ISSN: 0376-4699  
 DT Journal  
 LA English  
 OS CASREACT 114:101420  
 AB In an attempt to obtain 3,3'-linked biflavonoids, 1,4-bis(2-hydroxy-4-methoxyphenyl)butane-1,4-dione, prepd. by the partial methylation of the dihydroxy compd., has been subjected to flavone cyclization via Baker-Venkataraman rearrangement of the derived esters. This has led to flavone I which is closest to the target mol. The unexpected formation of the xanthone II during the attempted condensation of 2,4-(HO)2C6H3COCH2CH2CO2H with resorcinol in the presence of polyphosphoric acid is also reported. Two pyridazinones have also been prepd. from .beta.-aroylpropionic esters.  
 IT **132124-42-6P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of)  
 RN 132124-42-6 CAPLUS  
 CN 1,3-Propanedione, 1-(3,4-dimethoxyphenyl)-2-[2-(3,4-dimethoxyphenyl)-7-methoxy-4-oxo-4H-1-benzopyran-3-yl]-3-(2-hydroxy-4-methoxyphenyl)- (9CI)  
 (CA INDEX NAME)



L14 ANSWER 84 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1990:548938 CAPLUS  
 DN 113:148938  
 TI Phenolic composition of bud exudates of *Populus deltoides*  
 AU Greenaway, W.; English, S.; Whatley, F. R.  
 CS Dep. Plant Sci., Univ. Oxford, Oxford, OX1 3RA, UK  
 SO Zeitschrift fuer Naturforschung, C: Journal of Biosciences (1990), 45(6), 587-93  
 CODEN: ZNCBDA; ISSN: 0341-0382  
 DT Journal  
 LA English  
 AB Bud exudate of *P. deltoides* clones originating from six central and eastern American states was examd. by gas chromatog./mass spectrometry and the components were identified. The principal components of the bud exudate were the flavone galangin, the flavonone pinocembrin and the flavanone pinobanksin, together with the related compds. pinocembrin chalcone, pinobanksin Me ether, and pinobanksin-3-acetate. The bud exudate compn. was very different from that seen in a North American poplar of the section *Tacamahaca*, *P. balsamifera*.  
 IT **129693-91-0**  
 RL: BIOL (Biological study)  
 (of bud exudates of *Populus deltoides*)  
 RN 129693-91-0 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-(benzoyloxy)-2,3-dihydro-5,7-dihydroxy-2-phenyl-, (2R-trans)- (9CI) (CA INDEX NAME)

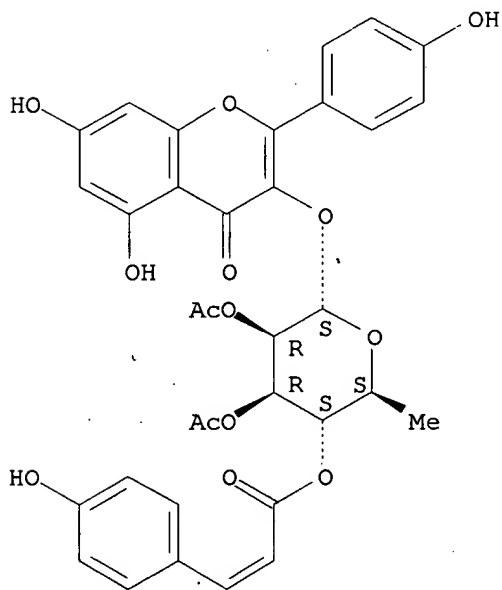
Absolute stereochemistry.





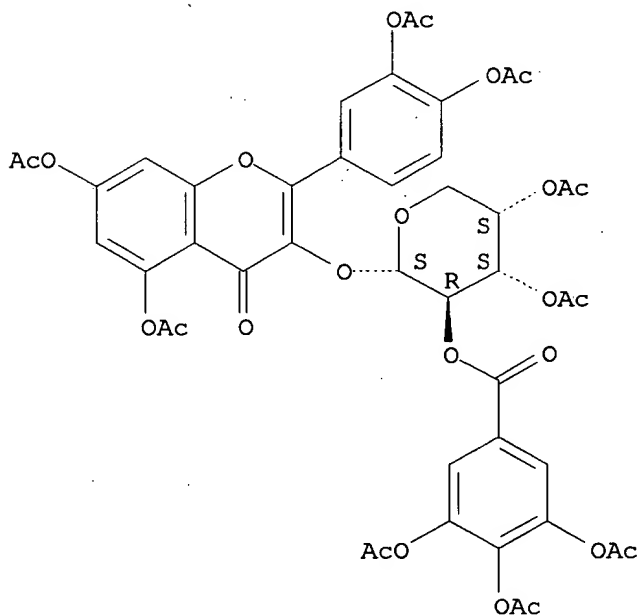
L14 ANSWER 85 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1990:494805 CAPLUS  
 DN 113:94805  
 TI Kaempferol-3-(2,3-diacetoxy-4-p-coumaroyl)rhamnoside from leaves of *Myrica gale*  
 AU Carlton, Robert R.; Gray, Alexander I.; Lavaud, Catherine; Massiot, Georges; Waterman, Peter G.  
 CS Dep. Pharm., Univ. Strathclyde, Glasgow, G1 1XW, UK  
 SO Phytochemistry (1990), 29(7), 2369-71  
 CODEN: PYTCAS; ISSN: 0031-9422  
 DT Journal  
 LA English  
 OS CASREACT 113:94805  
 AB A new flavonol glycoside has been isolated from the leaves of *M. gale* and identified as kaempferol-3-(2,3-diacetoxy-4-p-coumaroyl)rhamnoside.  
 IT **128941-61-7**  
 RL: BIOL (Biological study)  
 (from *Myrica gale* leaves, isolation and structure of)  
 RN 128941-61-7 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-[[2,3-di-O-acetyl-6-deoxy-4-O-[3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry unknown.



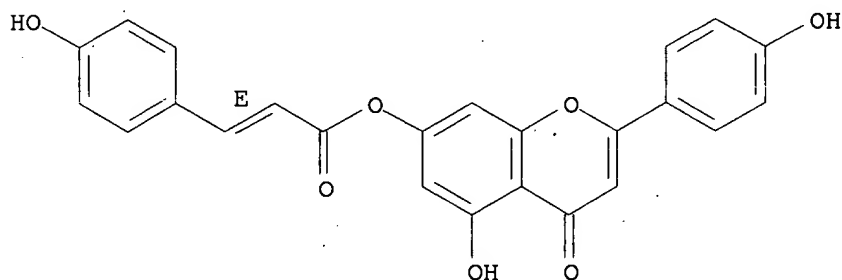
L14 ANSWER 86 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1990:474768 CAPLUS  
 DN 113:74768  
 TI An acylated flavonol glycoside from *Lasiobema japonica*  
 AU Iwagawa, Tetsuo; Kawasaki, Junichi; Hase, Tsunao; Sako, Shizuo; Okubo, Tsutomu; Ishida, Munetaka; Kim, Mujo  
 CS Fac. Sci., Kagoshima Univ., Kagoshima, 890, Japan  
 SO Phytochemistry (1990), 29(3), 1013-14  
 CODEN: PYTCAS; ISSN: 0031-9422  
 DT Journal  
 LA English  
 OS CASREACT 113:74768  
 AB A new acylated flavonol glycoside quercetin 3-.alpha.-arabinopyranoside-2''-gallate, having antibacterial activity, was isolated from the leaves of *L. japonica*. Quercetin, hyperin, and quajavarin were also identified.  
 IT **128700-96-9P**  
 RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)  
 RN 128700-96-9 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5,7-bis(acetyloxy)-2-[3,4-bis(acetyloxy)phenyl]-3-[[3,4-di-O-acetyl-2-O-[3,4,5-tris(acetyloxy)benzoyl]-.alpha.-L-arabinopyranosyl]oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 87 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1990:195278 CAPLUS  
 DN 112:195278  
 TI A glucosylated acylflavone from *Sideritis raeseri*  
 AU Gabrieli, Christi; Kokkalou, Eygene  
 CS Dep. Pharm., Aristotle Univ. Thessaloniki, Thessaloniki, 540 06, Greece  
 SO Phytochemistry (1990), 29(2), 681-3  
 CODEN: PYTCAS; ISSN: 0031-9422  
 DT Journal  
 LA English  
 OS CASREACT 112:195278  
 AB Besides apigenin 7-glucoside, a new glucosylated acylflavone has been isolated from *S. raeseri* and its structure elucidated as apigenin 7-(4-O-.beta.-glucosyl-trans-p-coumarate), on the basis of spectral and chem. anal.  
 IT **126661-94-7P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. by enzymic cleavage and alk. hydrolysis of)  
 RN 126661-94-7 CAPLUS  
 CN 2-Propenoic acid, 3-(4-hydroxyphenyl)-, 5-hydroxy-2-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl ester, (E)- (9CI) (CA INDEX NAME)

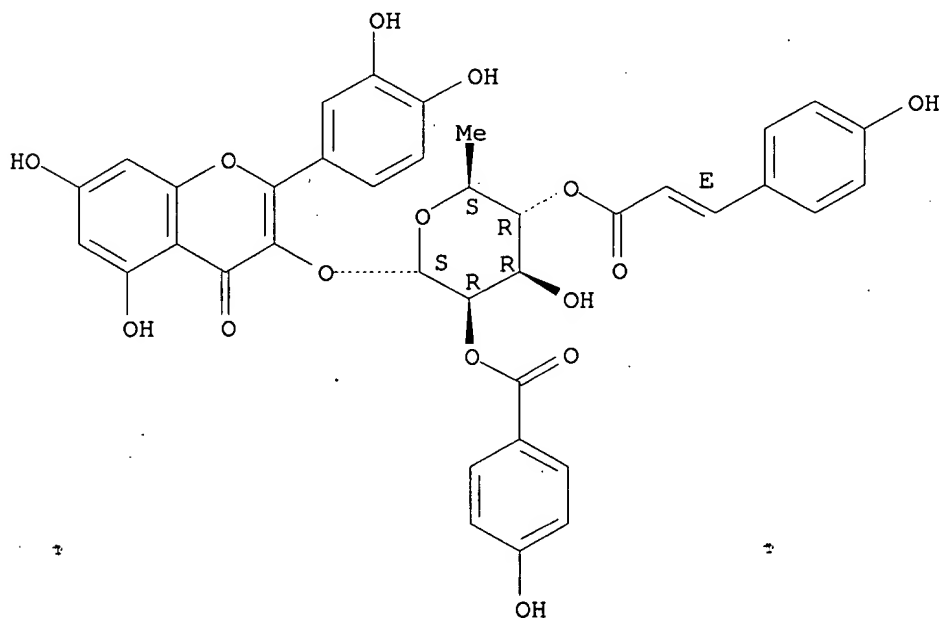
Double bond geometry as shown.



L14 ANSWER 88 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1990:195256 CAPLUS  
 DN 112:195256  
 TI Flavonoid profiles of New Zealand Libocedrus and related genera  
 AU Markham, Kenneth R.; Franke, Adrian; Molloy, Brian P. J.; Webby, Rosemary F.  
 CS Chem. Div., DSIR, Petone, N. Z.  
 SO Phytochemistry (1990), 29(2), 501-7  
 CODEN: PYTCAS; ISSN: 0031-9422  
 DT Journal  
 LA English  
 AB Flavonoids common to both *Libocedrus bidwillii* and *L. plumosa*, which were sampled throughout New Zealand, are: kaempferol and quercetin 3-rhamnoside, kaempferol and quercetin 3-rhamnoside-7-glucoside, quercetin 3-glucoside, apigenin and luteolin 7-glucoside, luteolin 7-di- (and tri)-glucosides, amentoflavone, 7-O-methylamentoflavone, 2,3-dihydroamentoflavone, and the new flavonoids, 8-hydroxyapigenin and 8-hydroxyluteolin 7-O-xylosides and 7-O-methyl-2,3-dihydroamentoflavone. *L. plumosa* is distinguished by the addnl. accumulation of myricetin 3-rhamnoside, and *L. bidwillii* by the presence of quercetin 3-O-.alpha.-[2-p-hydroxybenzoyl-4-O-p-coumaroylrhamnopyranoside] which was found among the biflavones. A chromatog. survey of some related non-New Zealand species and genera is also reported.  
 IT **126149-76-6**  
 RL: BIOL (Biological study)  
 (of *Libocedrus* and related genera of New Zealand)  
 RN 126149-76-6 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 3-[[[6-deoxy-2-O-(4-hydroxybenzoyl)-4-O-[3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-, (E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



L14 ANSWER 89 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1990:174603 CAPLUS

DN 112:174603

TI Quercetin glucosides and galactosides: substrates and inhibitors of apple .beta.-galactosidase

AU Dick, Arthur J.; Smith, Kevin C.

CS Chem. Dep., Acadia Univ., Wolfville, NS, B0P 1X0, Can.

SO Journal of Agricultural and Food Chemistry (1990), 38(4), 923-6

CODEN: JAFCAU; ISSN: 0021-8561

DT Journal

LA English

AB Quercetin 3-O-.beta.-D-glucoside and -galactoside, 7-O-.beta.-D-glucoside and -galactoside, and 3,7-di-O-.beta.-D-glucoside and -galactoside were synthesized in improved yields by established methods. The last named compd., not previously described, was characterized by <sup>1</sup>H and <sup>13</sup>C NMR. The major .beta.-galactosidase of apple fruit hydrolyzed the 7-galactosyl group but not the 3-galactosyl or any glucosyl group from the quercetin glycosides. The apple .beta.-galactosidase was inhibited to a similar extent by quercetin and its 7-glycosides. Quercetin 3-glycosides were somewhat more effective inhibitors, and the 3,7-digalactoside was 25-fold more effective (K<sub>i</sub> = 10-5 M). The strong inhibition of the .beta.-galactosidase was not accounted for by the substrate properties of quercetin 3,7-digalactoside.

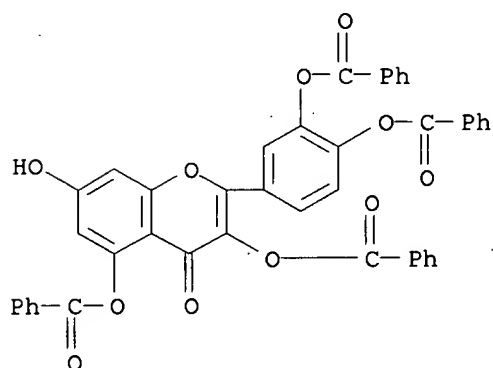
IT 25307-99-7 37706-95-9

RL: BIOL (Biological study)

(coupling with tetraacetylglucosyl bromides in silver oxide presence and sapon. of)

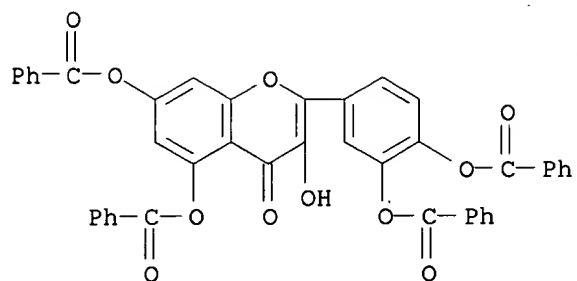
RN 25307-99-7 CAPLUS

CN 4H-1-Benzopyran-4-one, 3,5-bis(benzoyloxy)-2-[3,4-bis(benzoyloxy)phenyl]-7-hydroxy- (9CI) (CA INDEX NAME)



RN 37706-95-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,7-bis(benzoyloxy)-2-[3,4-bis(benzoyloxy)phenyl]-3-hydroxy- (9CI) (CA INDEX NAME)



L14 ANSWER 90 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1990:155217 CAPLUS

DN 112:155217

TI Quercetin-3-O-.alpha.-[2-O-p-hydroxybenzoyl-4-O-p-coumaroylrhamnopyranoside], an aglycon-like flavonol glycoside from *Libocedrus bidwillii*

AU Franke, Adrian; Markham, Kenneth R.

CS Chem. Div., DSIR, Petone, N. Z.

SO Phytochemistry (1989), 28(12), 3566-8

CODEN: PYTCAS; ISSN: 0031-9422

DT Journal

LA English

AB Quercetin-3-O-.alpha.-[2-O-p-hydroxybenzoyl-4-O-p-coumaroylrhamnopyranoside] (I), a new natural product with unusual mixed acylation, has been found accompanying the biflavonoids in *L. bidwillii*. Aglycon-like chromatog. properties resulted in this compd. being missed in the initial chemotaxonomic screening of flavonoid glycosides in *Libocedrus*.

IT 126149-76-6

RL: BIOL (Biological study)

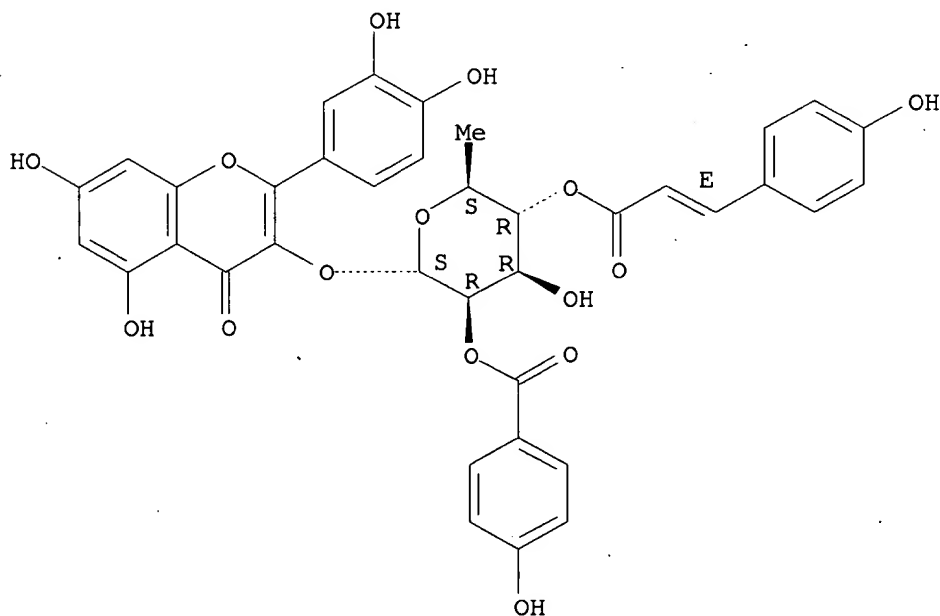
(from *Libocedrus bidwillii*)

RN 126149-76-6 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[6-deoxy-2-O-(4-hydroxybenzoyl)-4-O-[3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.alpha.-L-mannopyranosyl]oxy]-2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-, (E)- (9CI) (CA INDEX NAME)

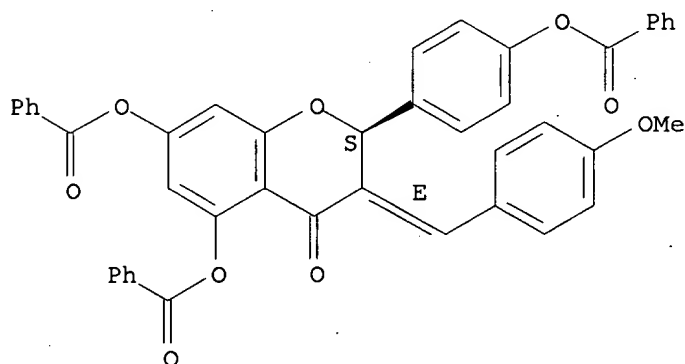
Absolute stereochemistry.

Double bond geometry as shown.



L14 ANSWER 91 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1990:98248 CAPLUS  
 DN 112:98248  
 TI On the first one-pot general synthesis of novel 3-benzal-2,3-dihydro-4H-[1]benzopyran-4-ones  
 AU Krishnamurty, H. G.; Parkash, Brahm; Sathyanarayana, S.  
 CS Dep. Chem., Univ. Delhi, Delhi, 110 007, India  
 SO Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1989), 28B(3), 279-81  
 CODEN: IJSBDB; ISSN: 0376-4699  
 DT Journal  
 LA English  
 OS CASREACT 112:98248  
 AB The base-catalyzed condensation reaction between 2-HOC6H4COMe and arom. aldehydes gives the chalcone and flavanone as products and not 3-arylidene flavanone, as previously reported (H. M. Chawla and S. K. Sharma, 1987). 3-Benzylidene flavanones (flavindogenides) are obtained by acid-catalyzed condensation of a flavanone with an arom. aldehyde.  
 IT **125130-58-7P**  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. and debenzoylation of)  
 RN 125130-58-7 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5,7-bis(benzoyloxy)-2-[4-(benzoyloxy)phenyl]-2,3-dihydro-3-[(4-methoxyphenyl)methylene]-, [S-(E)]- (9CI) (CA INDEX NAME)

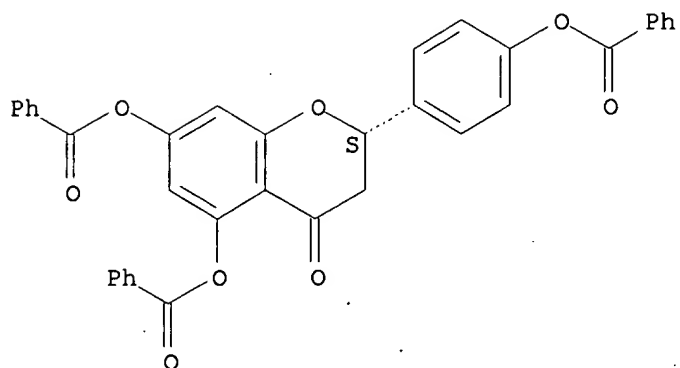
Absolute stereochemistry.  
 Double bond geometry as shown.



IT **125130-59-8P**  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. and reaction of, with anisaldehyde)  
 RN 125130-59-8 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 5,7-bis(benzoyloxy)-2-[4-(benzoyloxy)phenyl]-2,3-dihydro-, (2S)- (9CI) (CA INDEX NAME)

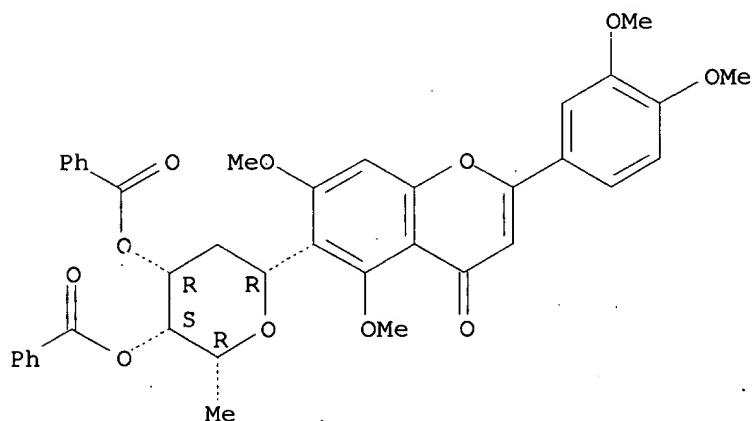
Absolute stereochemistry.





L14 ANSWER 92 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1990:52280 CAPLUS  
 DN 112:52280  
 TI Studies on the constituents of the leaves of *Cassia torosa* Cav. I. The structures of two new C-glycosylflavones  
 AU Kitanaka, Susumu; Ogata, Koreharu; Takido, Michio  
 CS Coll. Pharm., Nihon Univ., Funabashi, 274, Japan  
 SO Chemical & Pharmaceutical Bulletin (1989), 37(9), 2441-4  
 CODEN: CPBTAL; ISSN: 0009-2363  
 DT Journal  
 LA English  
 AB Two novel C-2,6-dideoxyglycosylflavones, torosaflavones A (I) and B (II), were isolated from the leaves of *C. torosa*. The structures of the new compds. I and II were established as apigenin 6-C-.beta.-D-olioside and diosmetin 6-C-.beta.-D-olioside, resp., on the basis of spectral and x-ray anal.  
 IT **124961-74-6P**  
 RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)  
 RN 124961-74-6 CAPLUS  
 CN 4H-1-Benzopyran-4-one, 6-(3,4-di-O-benzoyl-2,6-dideoxy-.beta.-D-lyxo-hexopyranosyl)-2-(3,4-dimethoxyphenyl)-5,7-dimethoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 93 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1990:20814 CAPLUS

DN 112:20814

TI Synthesis of 5,6-dihydroxy-7,4'-dimethoxyflavone by a transacylation method

AU Ramesh, P.; Yuvarajan, C. R.; Narayanan, V.

CS Sch. Chem., Madurai Kamaraj Univ., Madurai, 625 021, India

SO Current Science (1989), 58(1), 29-30

CODEN: CUSCAM; ISSN: 0011-3891

DT Journal

LA English

OS CASREACT 112:20814

AB Flavone I (R = H, R1 = Me) was prepd. from I (R = R1 = H) by benzylation, selective debenzylation of I (R = R1 = Bz), methylation of I (R = Bz, R1 = H), and debenzylation of I (R = Bz, R1 = Me).

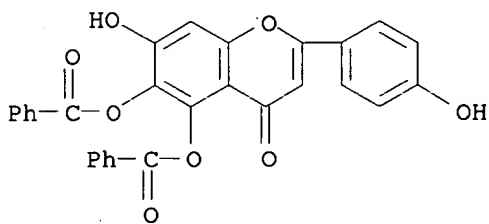
IT **124324-67-0P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and methylation of)

RN 124324-67-0 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,6-bis(benzoyloxy)-7-hydroxy-2-(4-hydroxyphenyl)-(9CI) (CA INDEX NAME)



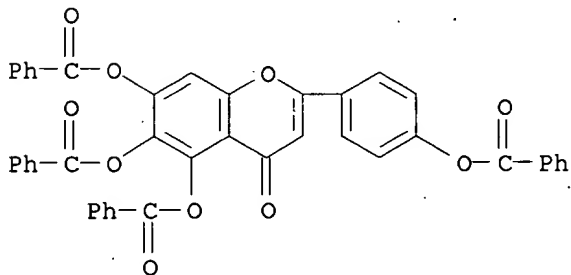
IT **124324-66-9P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and partial debenzylation of)

RN 124324-66-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 5,6,7-tris(benzoyloxy)-2-[4-(benzoyloxy)phenyl]-(9CI) (CA INDEX NAME)



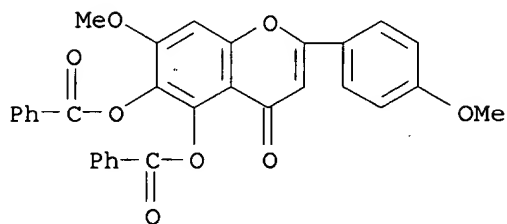
IT **124324-68-1P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

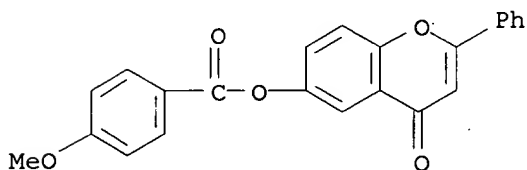
(prepn. and sapon. of)

RN 124324-68-1 CAPLUS

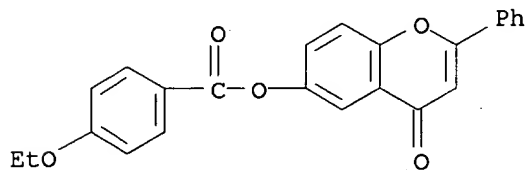
CN 4H-1-Benzopyran-4-one, 5,6-bis(benzoyloxy)-7-methoxy-2-(4-methoxyphenyl)-  
(9CI) (CA INDEX NAME)



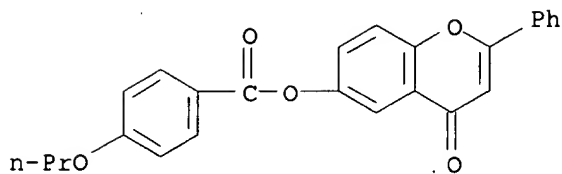
L14 ANSWER 94 OF 220 CAPLUS COPYRIGHT 2003 ACS  
 AN 1989:606088 CAPLUS  
 DN 111:206088  
 TI Phase transitions of 6-(4-n-alkoxybenzoyloxy)flavones and  
 3-cyano-7-(4-n-alkoxybenzoyloxy)coumarins  
 AU Hirose, Tadashi; Tsuya, Kazuhide; Nishigaki, Tatsuya; Idaka, Eiichi;  
 Yano, Shinichi  
 CS Fac. Eng., Gifu Univ., Gifu, 501-11, Japan  
 SO Liquid Crystals (1989), 4(6), 653-9  
 CODEN: LICRE6; ISSN: 0267-8292  
 DT Journal  
 LA English  
 AB Phase transitions of 6-(4-alkoxybenzoyloxy)flavones (ABF) and  
 3-cyano-7-(4-alkoxybenzoyloxy)coumarins (CABC) were studied using D.S.C.  
 and polarized microscopy. ABF series showed a nematic phase which has an  
 excellent thermal stability, whereas CABC series exhibited a smectic A  
 phase in the longer 4-alkoxybenzoyloxy ones than 4-hexyloxybenzoyloxy.  
 This difference in the mesogenicity was discussed from the structure and  
 polarity of flavone and coumarin skeletons which may be assocd. with an  
 intermol. interaction in the mesophase.  
 IT 123521-76-6 123521-77-7 123521-78-8  
 123521-79-9 123521-80-2 123521-81-3  
 123521-82-4 123521-83-5 123521-84-6  
 123521-85-7  
 RL: PRP (Properties)  
 (liq. crystal, phase transition temps. and entropies of)  
 RN 123521-76-6 CAPLUS  
 CN Benzoic acid, 4-methoxy-, 4-oxo-2-phenyl-4H-1-benzopyran-6-yl ester (9CI)  
 (CA INDEX NAME)



RN 123521-77-7 CAPLUS  
 CN Benzoic acid, 4-ethoxy-, 4-oxo-2-phenyl-4H-1-benzopyran-6-yl ester (9CI)  
 (CA INDEX NAME)

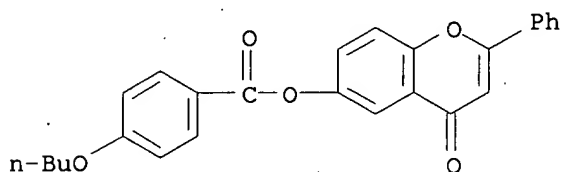


RN 123521-78-8 CAPLUS  
 CN Benzoic acid, 4-propoxy-, 4-oxo-2-phenyl-4H-1-benzopyran-6-yl ester (9CI)  
 (CA INDEX NAME)



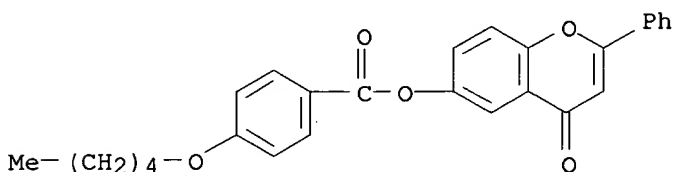
RN 123521-79-9 CAPLUS

CN Benzoic acid, 4-butoxy-, 4-oxo-2-phenyl-4H-1-benzopyran-6-yl ester (9CI)  
(CA INDEX NAME)



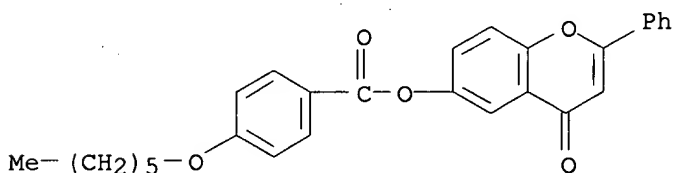
RN 123521-80-2 CAPLUS

CN Benzoic acid, 4-(pentyloxy)-, 4-oxo-2-phenyl-4H-1-benzopyran-6-yl ester  
(9CI) (CA INDEX NAME)



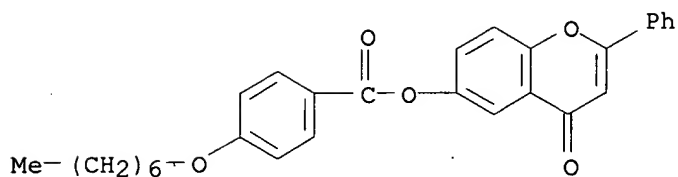
RN 123521-81-3 CAPLUS

CN Benzoic acid, 4-(hexyloxy)-, 4-oxo-2-phenyl-4H-1-benzopyran-6-yl ester  
(9CI) (CA INDEX NAME)



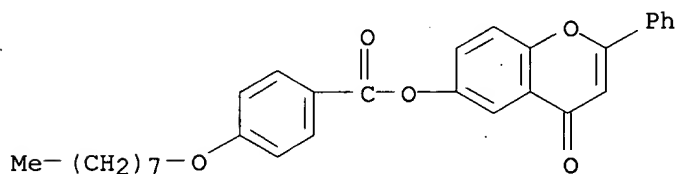
RN 123521-82-4 CAPLUS

CN Benzoic acid, 4-(heptyloxy)-, 4-oxo-2-phenyl-4H-1-benzopyran-6-yl ester  
(9CI) (CA INDEX NAME)



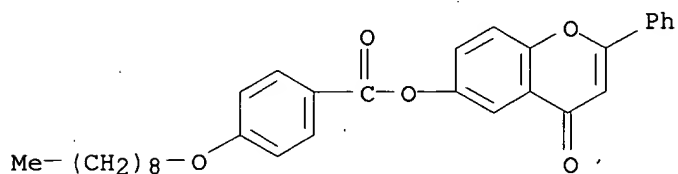
RN 123521-83-5 CAPLUS

CN Benzoic acid, 4-(octyloxy)-, 4-oxo-2-phenyl-4H-1-benzopyran-6-yl ester  
(9CI) (CA INDEX NAME)



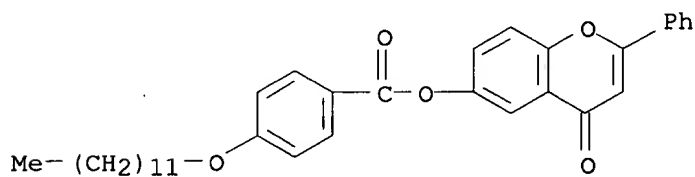
RN 123521-84-6 CAPLUS

CN Benzoic acid, 4-(nonyloxy)-, 4-oxo-2-phenyl-4H-1-benzopyran-6-yl ester  
(9CI) (CA INDEX NAME)



RN 123521-85-7 CAPLUS

CN Benzoic acid, 4-(dodecyloxy)-, 4-oxo-2-phenyl-4H-1-benzopyran-6-yl ester  
(9CI) (CA INDEX NAME)



L14 ANSWER 95 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1989:587601 CAPLUS

DN 111:187601

TI Anticancer agents containing flavonoids

IN Oka, Kitaro; Hirano, Toshihiko; Sekine, Yasuo

PA Fujirebio, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01096124	A2	19890414	JP 1987-251627	19871007
PRAI	JP 1987-251627		19871007		

OS MARPAT 111:187601

AB Anticancer agents contain flavonoids I [R1, R2 = H, OH, (un)substituted alkoxy, alkyl, arylcarbonyloxy; R3= H, OH, alkoxy] as active ingredients. 6-Hydroxyflavone inhibited human breast cancer ZR-75-1 in vitro by 90% (no concn. given).

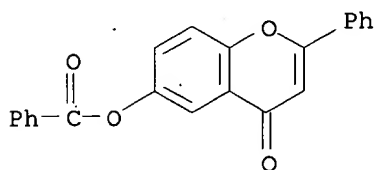
IT 121287-13-6

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(neoplasm inhibition by)

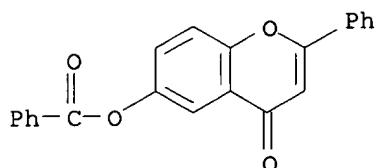
RN 121287-13-6 CAPLUS

CN 4H-1-Benzopyran-4-one, 6-(benzoyloxy)-2-phenyl- (9CI) (CA INDEX NAME)





L14 ANSWER 96 OF 220 CAPLUS COPYRIGHT 2003 ACS  
AN 1989:417156 CAPLUS  
DN 111:17156  
TI Antiproliferative effects of synthetic and naturally occurring flavonoids on tumor cells of the human breast carcinoma cell line, ZR-75-1  
AU Hirano, Toshihiko; Oka, Kitaro; Akiba, Mitsuo  
CS Div. Clin. Pharmacol. Pharm. Chem., Tokyo Coll. Pharm., Tokyo, 192-03, Japan  
SO Research Communications in Chemical Pathology and Pharmacology (1989), 64(1), 69-78  
CODEN: RCOCB8; ISSN: 0034-5164  
DT Journal  
LA English  
AB An examn. was made of the effects of 21 synthetic and naturally occurring flavonoids on the in vitro growth of the human breast carcinoma cell line ZR-75-1. In all cases, antiproliferative effects were noted, with IC50 ranging 2.7-33.5 .mu.g/mL, except for the isoflavonoid daidzin with IC50 >50 .mu.g/mL. No structure-activity relationship among the compds. could be found. Flavone, 6-hydroxyflavone, and 4',5,7-trihydroxyflavone (apigenin) were the most potent with IC50 of 2.7, 3.4, and 3.5 .mu.g/mL, resp. The flavonoid effects were not due to cytostatic action alone, since cell death increased concn. dependently based on a dye exclusion test.  
IT **121287-13-6**  
RL: PRP (Properties)  
(antitumor effects of, structure in relation to)  
RN 121287-13-6 CAPLUS  
CN 4H-1-Benzopyran-4-one, 6-(benzoyloxy)-2-phenyl- (9CI) (CA INDEX NAME)



L14 ANSWER 97 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1989:231436 CAPLUS

DN 110:231436

TI 2-Phenyl-4H-1-benzopyran-4-ones for treatment of osteoporosis

IN Kinoshita, Yukihiro; Ajisawa, Yukihiro; Ikeguchi, Seiichi; Ujiie, Shinsei; Tsutsumi, Naoyuki

PA Kissei Pharmaceutical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63201124	A2	19880819	JP 1987-31989	19870214
	JP 07029921	B4	19950405		
PRAI	JP 1987-31989		19870214		

OS MARPAT 110:231436

AB Osteoporosis-treating pharmaceuticals contain title compds. I (R1-R3 = H, C1-3 alkyl) or their pharmacol. acceptable salts as active ingredients. 5-Benzoyloxy-2-hydroxy-3,4-dimethoxydibenzoylmethane (3.6 g) was refluxed with AcONa in AcOH for 3 h to give 2 g 6-benzoyloxy-7,8-dimethoxy-2-phenyl-4H-1-benzopyran-4-one. The product (2 g) was refluxed with aq. KOH in MeOH for .apprx.30 min to yield 0.4 g I (R1 = R2 = Me, R3 = H) (II), which at 10-4M increased the biol. half life of Ca in chicken femur compared with controls in vitro. Hard capsules were prepd. from II 100, lactose 59, corn starch 35, and talc 6 g.

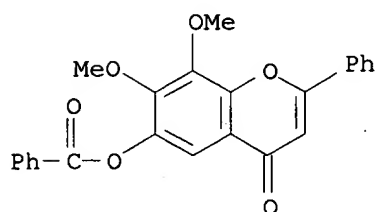
IT **119892-38-5P**, 6-Benzoyloxy-7,8-dimethoxy-2-phenyl-4H-1-benzopyran-4-one **119892-39-6P**, 8-Benzoyloxy-6,7-dimethoxy-2-phenyl-4H-1-benzopyran-4-one

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and debenzoylation of)

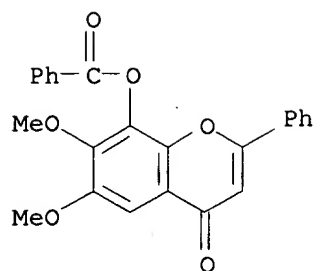
RN 119892-38-5 CAPLUS

CN 4H-1-Benzopyran-4-one, 6-(benzoyloxy)-7,8-dimethoxy-2-phenyl- (9CI) (CA INDEX NAME)



RN 119892-39-6 CAPLUS

CN 4H-1-Benzopyran-4-one, 8-(benzoyloxy)-6,7-dimethoxy-2-phenyl- (9CI) (CA INDEX NAME)



L14 ANSWER 98 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1989:231435 CAPLUS

DN 110:231435

TI 2-Phenyl-4H-1-benzopyran-4-ones for treatment of osteoporosis

IN Kinoshita, Yukihiro; Ajisawa, Yukihiro; Ikeguchi, Seiichi; Ujiie, Shinsei; Tsutsumi, Naoyuki

PA Kissei Pharmaceutical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63201123	A2	19880819	JP 1987-31988	19870214
	JP 07029920	B4	19950405		
PRAI	JP 1987-31988		19870214		

OS MARPAT 110:231435

AB Osteoporosis-treating pharmaceuticals contain title compds. I (R1-R3 = H, C1-3 alkyl) or their pharmacol. acceptable salts as active ingredients. I (R1 = R3 = Me, R2 = H) (prepn. given) (2 g) was refluxed with K<sub>2</sub>CO<sub>3</sub> and MeI in Me<sub>2</sub>CO for 24 h to give 1.7 g I (R1-R3 = Me) (II), which at 10-4M increased the biol. half life of Ca in chicken femur compared with controls in vitro. Hard capsules were prep'd. from II 100, lactose 59, corn starch 35, and talc 6 g.

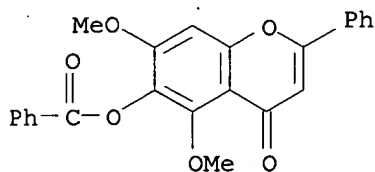
IT **119892-42-1P**, 6-Benzoyloxy-5,7-dimethoxy-2-phenyl-4H-1-benzopyran-4-one

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and debenzoylation of)

RN 119892-42-1 CAPLUS

CN 4H-1-Benzopyran-4-one, 6-(benzoyloxy)-5,7-dimethoxy-2-phenyl- (9CI) (CA INDEX NAME)



L14 ANSWER 99 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1989:128248 CAPLUS

DN 110:128248

TI Topical anti-inflammatory activity of a new acylated flavonoid

AU Tubaro, A.; Del Negro, P.; Bianchi, P.; Romussi, G.; Della Loggia, R.

CS Univ. Trieste, Trieste, Italy

SO Agents and Actions (1989), 26(1-2), 229-30

CODEN: AGACBH; ISSN: 0065-4299

DT Journal

LA English

AB In inflammation models in mice, acetylated flaconoid kaempferol-di-coumaroylglucoside (KCG) showed antiinflammatory activity; it inhibited both vascular and cellular events involved in inflammation. KCG was .apprx.4 times more active than indomethacin and its activity was much more prolonged.

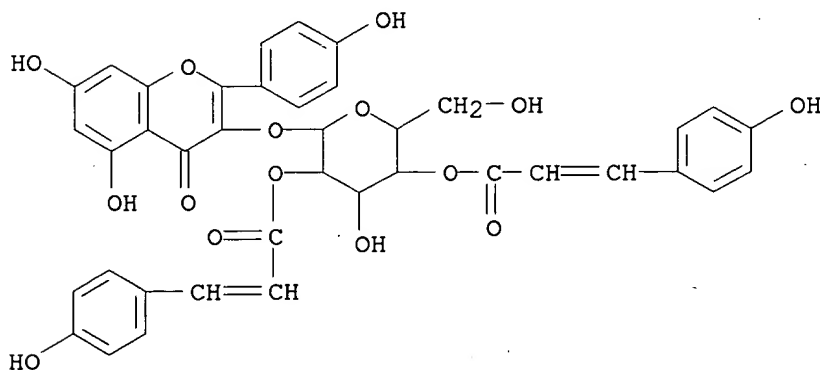
IT 94535-60-1

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antiinflammatory activity of)

RN 94535-60-1 CAPLUS

CN 4H-1-Benzopyran-4-one, 3-[[2,4-bis-O-[3-(4-hydroxyphenyl)-1-oxo-2-propenyl]-.beta.-D-glucopyranosyl]oxy]-5,7-dihydroxy-2-(4-hydroxyphenyl)-, (E,E)- (9CI) (CA INDEX NAME)



L14 ANSWER 100 OF 220 CAPLUS COPYRIGHT 2003 ACS

AN 1989:13613 CAPLUS

DN 110:13613

TI Pharmaceuticals containing 2-phenyl-4H-1-benzopyran-4-one derivatives or their salts for treatment of osteoporosis

IN Kinoshita, Yukihiro; Ajisawa, Yukihiro; Ikeguchi, Seiichi; Ujiie, Shinsei; Tsutsumi, Naoyuki

PA Kissei Pharmaceutical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63156723	A2	19880629	JP 1986-306064	19861222
	JP 06029185	B4	19940420		
PRAI	JP 1986-306064		19861222		

OS MARPAT 110:13613

AB Therapeutics for osteoporosis, contg. title compds. I (R1, R2 = H, C1-3 alkyl) or their pharmacol. acceptable salts, are described. I (R1 = H, R2 = Me) (500 mg) (prepn. given) was refluxed with 2.0 g K<sub>2</sub>CO<sub>3</sub> and 2.0 g MeI in Me<sub>2</sub>CO for 15 h to give 400 mg I (R1 = R2 = Me) (II), which at 10<sup>-4</sup> M had a Ca release half-time of 1.91 (based on a control) in the chicken embryo femur in vitro. Tablets were prepd. from II 100, lactose 95, corn starch 40, Ca CMC 8 g, 5% aq. hydroxypropyl cellulose, and Ca stearate.

IT **118021-66-2P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. and debenzoylation of)

RN 118021-66-2 CAPLUS

CN 4H-1-Benzopyran-4-one, 6-(benzoyloxy)-7-methoxy-2-phenyl- (9CI) (CA INDEX NAME)

